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# Consumer BULLETIN

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The white segment in the top of the picture shows the loss of rubber caused in car's tests from the dirt that, according to General Dual 90 advertising, should no tread wear in "nine full panic stops." The black line shows the white segment is part of a strip of cardboard placed around the tire to establish the original outline of the tire before loss of rubber by wear.

## General Dual 90 tire



### *A very expensive tire that failed to live up to its advertised claims*

THE MOST INTRIGUING PIECES of large-scale advertising we have seen in a long time were the recent advertisements of the General Tire & Rubber Co. for their new *General Dual 90* tires. After reading one of these ads, any consumer who wanted the best possible tires for his car, irrespective of price, would naturally conclude that the *General Dual 90* ("The tire with two treads, so strong and safe it will save lives.") could have no possible rival or even near-rival as a tire with phenomenal wear life, and one to assure safety for himself and his family.

Who wouldn't want a tire claimed to show *no tread wear or distortion* after gruelling tests under unbelievably severe conditions?

According to the advertisement and a story in a popular "hobbyist" magazine, nine full panic stops were made in these tests at speeds between 95 and 105 miles per hour, stops so severe that the tires caught fire and smoked; yet the claim was made that these super-duper tires showed *no tread wear or distortion*. Any such statement needs to be taken with a very large grain of salt, for no rubber or, for that matter, even a steel tire could withstand that type of

treatment without showing considerable wear.

What is a panic stop? The reader of the advertisement will assume that the company means a stop in which the driver operates the brakes with all the force at his command. At speeds below 80 miles per hour, this would on some cars lock the wheels and cause them to slide, and rubber could not fail to be abraded from the tires, causing flat areas. Only under conditions in which wheels were locked or practically so would it be possible for the tires to catch fire and smoke, as the advertisement claimed happened with *Dual 90's*. General's proving ground tests, however, were said to have been made at speeds between 95 and 105 miles per hour. At such speeds, brakes of present-day cars are incapable of "locking" the wheels and keeping them so. A panic stop at such extreme speeds would generate so much heat that the brakes would almost certainly fade and it would be impossible to lock the wheels, at least until car speed had been greatly reduced. But if the wheels did not lock, then how could the tires momentarily catch fire?

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## The Consumers' Observation Post

THE BIGGER AND GRANDER, wider and longer trend of modern automobiles is not to the liking of a number of CR subscribers. One who confesses that he is "old-fashioned at the age of 31" notes that American cars are getting farther away each year from what he wants. He is a forest ranger, and his last two cars have been station wagons; but he reports "each one gets longer and lower and harder to maneuver around the mountains. I don't want power plus and tin lace...what I want is an inexpensive vehicle on the station wagon order that gives some road clearance, is easily handled, has comfortable riding, good mileage, and cheap maintenance....Looks and power are secondary with me." As he mournfully concludes: "I guess this is asking too much nowadays."

\* \* \*

THE NEW GIN AND TONIC DRINK that has become exceedingly popular may have unfortunate after-effects, quite apart from its alcohol content. Many people do not tolerate quinine, point out Drs. Frederick G. Novy, Jr., and Gordon R. Lamb of Oakland, Calif. Sensitivity to quinine may produce many unpleasant reactions, including deafness, vertigo, impairment of the vision, headaches, fever, abdominal distress, and skin eruptions. They describe the sad plight of one patient who, after five or six drinks of gin and tonic, developed a nearly universal dermatitis with a marked swelling about his eyes, arms, legs, and feet, and a patchy redness of the skin verging on the purple hue. It took 16 days to clear up the trouble. The doctors point out that it is well to remember that even a tiny dose of quinine may produce a severe reaction in a sensitive person.

\* \* \*

CHILDREN'S CLOTHES often do not measure up to the performance expected of them, and each mother sets her own standards as to what she expects in durability and appearance. Recently studies were made by Professors Fannie Potgieter and Opal Roberson of Iowa State College, with the aid of seven mothers, to judge the wearing performance and appearance of garments worn by 66 elementary school boys and girls over a 5-month period, and determine just what was desired and expected. On an over-all basis, the man-made fibers were rated ahead of natural fibers in appearance at the end of the wear period in several instances. In some cases, the garments did not maintain a high standard of appearance because many mothers did not realize what home care was required. The man-made fiber in many cases could be washed at home, whereas wool jackets and suits required dry cleaning. Some complaints were made of the poor cut of garments, poor construction, and bad combinations of colors, such as white nylon collars on colored nylon dresses where the white tended to pick up other colors when the garment was washed.

\* \* \*

AUTOMOBILE BATTERIES that last for a long time have always been a topic of interest to thrifty consumers. As the big battery companies readily admit, it is possible to supply a battery that will give a good many years' service in an automobile—but it will be heavier and cost more than the average consumer wants to pay. Shattering a dream, the Federal Trade Commission last June came up with an order, to which the Life-Long Battery Manufacturing Company agreed, prohibiting claims that the Life-Long Battery is self-charging, is a European invention, or similar in construction, performance, and effect to nickel-cadmium or alkaline-type batteries manufactured and sold in Europe, or is guaranteed for 10 years. The order also prohibits claims that testimonials are unsolicited and unbiased when this is not so.

RAYON CARPETING has been the subject of severe criticism by carpet sellers. According to Home Furnishings Daily, the chief complaints have been lack of resiliency and the difficulty of keeping rayon carpeting clean. Several dealers have commented that rayon in carpeting may be inexpensive and attractive to look at, but it has just not been a good sturdy fiber to walk on. The blends of rayons with other fibers, according to one store, were a little more satisfactory but have still been the subject of complaints from purchasers.

\* \* \*

FOOD FREEZERS may have their place in certain households. The consumer who buys one in the belief that he will save enough on food purchases to pay for the freezer, however, will be sadly disillusioned at an early date. The St. Louis Better Business Bureau warns against listening to any salesman's "pitch" that promises such savings. It points out that the freezer is convenient in permitting the consumer to take advantage of special sales and to make certain that sufficient food is on hand when unexpected guests arrive. On the other hand, the Bureau notes that a so-called "food plan" usually does not include meat, so that the initial supply of food for four or six months will need to be balanced by adding the amount likely to be spent for such an essential item. Of course, it is important to check the price of the freezer included in the frozen food plan with a similar freezer at a regular store, as well as the amount of the carrying charge for the privilege of a time payment basis. Make certain also of the financial standing of the company. Some companies have "mined" a particular region, then ceased operations, leaving a number of unhappy consumers with no source of supply of frozen foods as promised and a note to pay off to some bank or financing company.

\* \* \*

THAT 5-GALLON CAN OF GASOLINE purchased for the home lawn mower can be a fire hazard. A subscriber has sent in a picture of the charred wreckage of a car caused by a 5-gallon can of gasoline that exploded while the owner was absent for a brief time on an errand. While he was away, the gasoline exploded from some unknown cause, setting the car afire, and fatally burning two children who were in it. If you are transporting gasoline in a car, it is wise to use a 2-gallon can (not completely filled) with a screw cap, and make the journey as short as possible; do not allow the car to stand in the sun on a hot day.

\* \* \*

WOMEN'S FOOTWEAR is often a topic for "viewing with alarm" by medical men. The most recent example comes from London in the form of a letter to the British Medical Journal by Dr. Reginald T. Payne. Observing that modern footwear for women must be extremely uncomfortable since he has noted parks in the summer filled with women resting their feet with their shoes off, Dr. Payne remarks that many "present models have little relationship to the anatomy or physiology of the normal human foot," and that the slightest wearing off of the "pencil-point" heels produces various deformities or wobble of the whole foot during walking. Dr. Payne laments the fact that over the past few years it has become increasingly difficult for women to get reasonable walking shoes for normal feet. In fact, the situation is so bad today that he suggests the need of what he refers to as "new sumptuary laws" to control the manufacture of proper women's footwear. He finds that most women who are wearing currently available shoes get pain in the calf, swelling of the feet, displacement of the big toe, and fatigue, to say nothing of more serious injuries such as sprains and fractures.

\* \* \*

VACATION IS OVER FOR MANY, but for those who are still planning a trip abroad, a bit of advice may be in order. Tourist diarrhea which is the plague of U. S. travelers in foreign lands has been discussed by Dr. B. H. Kean of New York City who suggests that sufficient rest, eating and drinking in moderation, with a minimum of foreign food are effective preventives of the difficulty. Highly seasoned and exotic foods, particularly sauces and gravies, should be avoided, and he recommends that an effort be made to

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# Consumer Bulletin

THE ORIGINAL CONSUMER INFORMATION MAGAZINE

## OFF THE EDITOR'S CHEST

THE SALES OF THE MECHANICAL DISHWASHER have taken a sharp rise in the last few years, and appliance men confidently expect to see the dishwasher in the mass market class in the not too distant future. From the first, one of the stumbling blocks to its acceptance has been the difficulty of securing an effective detergent.

The early dishwashing detergents were essentially alkalis, such as trisodium phosphate, sodium silicate, and sodium carbonate, that had a tendency to form insoluble calcium or magnesium curds even in fairly soft water. Later products combined such alkalis with sodium hexametaphosphate to eliminate the curd-forming problem.

Studies made by chemists of one of the large chemical companies indicated that an unbuilt synthetic detergent (one without added alkaline salts) would give film-free glassware, but such a substance would not by itself completely remove dried protein, such as egg, in hard water. They did, however, find that a synthetic detergent and tetra-potassium pyrophosphate gave excellent detergency even in very hard (300 parts per million) water. Another factor that these researchers considered was the prevention of redeposition of food soil on dishes being

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Consumers' Research is a non-profit institution. It is organized and operates as a scientific, technical, and educational service for consumers. It has no connections with business or advertising; its support comes solely from the consumers who read Consumers' Research Bulletin.

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Listings usually are arranged in alphabetical order by brand name (not in order of merit) under each quality or performance rating. A numeral 1, 2, or 3 at the end of a listing indicates relative price, 1 being low, 3 high. Where the 1, 2, 3 price ratings are given, brands in the 1, or least expensive group, are listed alphabetically, followed by brands in price group 2, also in alphabetical order, etc. A quality judgment is wholly independent of price.

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## Plastic dishes

As a result of the tests by Consumers' Research, a substantial number of brands of melamine dishes were found worthy of recommendation. Melamine dishes were best of four kinds tested. Coffee stains did not appear on original smooth melamine surfaces but were a problem on surfaces that had become roughened. Dishes made of other materials were found to be softer than melamine and thus more easily scratched by cutlery. Two of these materials were easily ignited by flame, and dishes made of them were damaged by burning cigarettes.

IT'S NOT HARD to crack or break a plastic dish with the special laboratory testing device Consumers' Research uses to test impact strength. But most plastic dinnerware will stand considerable knocking about in the home without breakage—and this is its greatest attraction for many people. Where many dishes are used, as in large families, the light weight of plastic dishes is also an important feature.

None of the plastic dishes CR tested were actually unbreakable, but many manufacturers "guarantee" their dishes against breakage for a year or two of "normal household use." (Russel Wright "Residential" is guaranteed for 10 years.) The manufacturer promises to replace a dish free if it does break during the guarantee period.

In CR's impact test, a dinner plate of each brand was subjected to a series of blows directed at the center of the plate and gradually increasing in energy until the plate cracked. Seventeen plates were tested in this way, 14 made from melamine-formaldehyde resin, one (*Tranquil*) made of "Bakelite C-11," one (*Hemcware*) made of "Beetleware," and one (*Gothamware*) made of an unidentified material. Among the melamine plates, resistance to breakage from impact was lowest for the one dish thinner than all the others—*Texas-Ware* "El Capitan." Greatest impact strength was shown by the same manufacturer's *Texas-Ware* "Nassau," which

was the thickest plate tested. Next in thickness and in impact strength was "*Today*" distributed by Sears, Roebuck & Co. The three dishes made of materials other than melamine also varied widely in impact resistance. *Gothamware* was the thinnest and by far the lowest in impact resistance of all the dishes tested; *Tranquil* was better than average; and *Hemcware* was somewhat below average in this respect.

In the chipping test, blows of gradually increasing intensity were applied to the edges of the plates. *Gothamware* was lowest in resistance to chipping. Pieces broke off the *Prolon* and *Texas-Ware* "*Bouquet*" plates at higher impacts. None of the other brands tested were appreciably affected by the highest impact used in the chipping test.

### Coffee staining

A frequent consumer complaint about melamine cups has been that they are stained by coffee and tea. CR's tests revealed an interesting fact about this problem, and indicated how the user, with proper care, can reduce such staining. Clean, new samples of each brand and a set of samples previously subjected to boiling dilute acid (see photo, page 8) were soaked in a strong solution of powdered ("soluble") coffee. No coffee stains appeared on any of the new samples, but all the melamine surfaces that had been dulled by acid action showed marked staining.

This seems to indicate that coffee stains on melamine cups are not likely to be a problem so long as the smooth original surface is retained. Cups and other dishes made of melamine should be handled with care to avoid scratching while in use or being washed, and no scouring powder, steel wool, or other abrasive material should ever be used on them. In time, despite care, there will no doubt be some scratches and other surface deterioration, and stains may appear. Stains should be removed by bleaching with one of the products sold for this purpose. (CR plans to test some of these materials and report on them in a future BULLETIN.) *Gothamware*, *Hemcolite*, and *Tranquil* were not stained by coffee.

#### Use tests, hardness

Samples of all the dishes were used for some time in CR's employee lunchroom. All showed some surface marks and scratches after several weeks of daily use. On *Gothamware*, these marks were so noticeable after a short period as to indicate that *Gothamware* is not at all suitable for regular table use. *Tranquil* was marked more than the other dishes in the test but not as badly as *Gothamware*. The melamine dishes were least marked and were essentially indistinguishable from one another in this respect. *Hemcoware* showed a little more marking than the melamine dishes, but a good deal less than *Gothamware* and *Tranquil*. Hardness tests made with a laboratory instrument confirmed these results by showing *Gothamware* and *Tranquil* as comparatively very soft, *Hemcoware* somewhat harder, and all the melamine brands harder still.

#### Plastic dishes in the automatic dishwasher?

In CR's current tests of automatic dishwashers (reported in the August 1957 BULLETIN), a number of melamine dishes were repeatedly washed in various machines without difficulty. All melamine dishes can be safely washed in automatic dishwashers provided that no part of any dish is allowed to come very close to the heating coil (if there is one in the machine). Placing square or odd-shaped pieces in machines may require some special care to keep projecting parts away from heater elements.

Of the dishes tested that were not made of melamine, *Gothamware* softens so readily when heated that it would not be advisable to wash it in an automatic dishwasher; *Tranquil* and *Hemcolite* would soften and become distorted if placed close to heating elements but might be safely washed by machine if loaded with great care. *Hemcoware* would require about the same precautions as melamine dishes.

#### New styles and patterns

Translucent melamine dishes in solid colors or decorated with a variety of colorful patterns are now offered by many manufacturers. Although the translucent melamine dishes do transmit some light, the ones included in the test and others observed in stores by CR's shoppers are not translucent to a sufficient degree to make any real difference in their appearance on a table. Certainly they do not look or feel at all like fine translucent china as some advertisements might lead a consumer to expect. The buyer's preference from the point of view of style and pattern in melamine dinnerware must, of course, be a matter of personal taste. Keep in mind that fancy patterns generally involve higher cost without necessarily any better quality than the plainer styles.



CR's impact tester with pendulum weight in position ready to be released.



Sections of dishes in original condition and after boiling in dilute acid for an hour. This test was done to determine resistance to boiling water and to estimate comparatively the cumulative effects of food acids. Tranquil, upper left, was deformed somewhat by heat and its surface dulled by acid action. Gothamware, lower left, was badly deformed but not dulled. Hemcaware, right, was not deformed, but its surface deteriorated and lost color. None of the melamine dishes were deformed in this test, but the surfaces of all were somewhat dulled by the action of the acid.

#### A. Recommended

**Harmony House "Catalina"** (Sears-Roebuck's Cat. No. 21-3505) \$5.56, plus postage, for 5-piece place setting consisting of one 9 $\frac{7}{8}$ -in. and one 6 $\frac{7}{8}$ -in. plate, bowl, cup, and saucer. \$9.96, plus postage, for 16-piece starter set consisting of 4 of each of the following: 9 $\frac{7}{8}$ -in. plate, sauce dish (small bowl), cup, and saucer. Two-year guarantee. Solid color melamine. Edges on bottoms of cup and bowl were sharp. Cup bottom did not fit snugly in saucer recess. 2

**Harmony House "Today"** (Sears-Roebuck's Cat. No. 21-3510) \$4.40, plus postage, for 5-piece place setting consisting of one 9 $\frac{7}{8}$ -in. and one 7-in. plate, bowl, cup, and saucer. \$7.97, plus postage, for 16-piece starter set consisting of 4 of each of the following: 9 $\frac{7}{8}$ -in. plate, sauce dish (small bowl), cup, and saucer. Two-year guarantee. Solid color melamine. Second thickest and second highest in impact resistance of brands tested. Cup handle had somewhat sharp edges. 2

**Boontonware "Belle"** (Boonton Molding Co., Boonton, N.J.) \$4.75 for 5-piece place setting consisting of one 10-in. and one 6 $\frac{3}{8}$ -in. plate, bowl, cup, and saucer. \$14.95 for 16-piece starter set consisting of 4 of each of the following: 10-in. and 6 $\frac{3}{8}$ -in. plates, cup, and

saucer. One-year guarantee. Solid color melamine. Lip on cup was somewhat sharp. 3

**Brookpark "Desert Flower"** (International Molded Plastics, Inc., Cleveland 9) \$6.25 for 5-piece place setting consisting of one 9 $\frac{7}{8}$ -in. and one 8-in. plate, bowl, cup, and saucer. \$14.95 for 16-piece starter set consisting of 4 of each of the following: 9 $\frac{7}{8}$ -in. and 6-in. plates, cup, and saucer. One-year guarantee. Translucent solid color melamine, with molded floral pattern in plates only. Cup and bowl handles had somewhat sharp edges. 3

**Color-Flyte** (The Branchell Co., St. Louis 16) \$6.50 for 5-piece place setting consisting of one 9 $\frac{7}{8}$ -in. and one 7 $\frac{3}{4}$ -in. plate, bowl, cup, and saucer. \$14.95 for 16-piece starter set consisting of 4 of each of the following: 9 $\frac{7}{8}$ -in. and 6-in. plates, cup, and saucer. One-year guarantee. Solid color melamine with slightly mottled pattern. 3

**Holiday "Texture"** (Kenro Corp., Fredonia, Wis.) \$6.15 for 5-piece place setting consisting of one 9 $\frac{7}{8}$ -in. and one 7 $\frac{3}{4}$ -in. plate, bowl, cup, and saucer. \$14.95 for 16-piece starter set consisting of 4 of each of the following: 9 $\frac{7}{8}$ -in. and 6-in. plates, cup, and saucer. One-year guarantee. Solid color melamine with specks of contrasting color. Handle and rim of cup were somewhat sharp. 3

**Lifetime Ware** (Watertown Mfg. Co., Watertown, Conn.) \$5.40 for 5-piece place setting consisting of one 10 $\frac{1}{8}$ -in. and one 6 $\frac{3}{8}$ -in. plate, bowl, cup, and saucer. \$13.95 for 16-piece starter set consisting of 4 of each of the following: 10 $\frac{1}{8}$ -in. plate, sauce dish (small bowl), cup, and saucer. One-year guarantee. Solid color melamine. Rims were finished somewhat roughly. 3

**Russel Wright "Residential"** (Northern Industrial Chemical Co., South Boston 27) \$6.95 for 5-piece place setting consisting of one oval plate 9 $\frac{7}{8}$  x 10 $\frac{3}{8}$  in., one round plate 7 $\frac{3}{8}$  in., bowl, cup, and saucer. \$15.95 for 16-piece starter set consisting of 4 of each of the



Marks from burning cigarettes on Gothamware (left), Tranquil (top), and Hemcolite-S.R. (right). Each of these products was also found to be flammable—could be readily ignited by the flame of an ordinary match—and continued to burn. Hemcaware and all the melamine dishes charred and burned only while in contact with flame.

following: 9 $\frac{7}{8}$  x 10 $\frac{3}{8}$  in. and 6-in. plates, cup, and saucer. Ten-year guarantee. Solid color melamine with mottled pattern. Cup lip was somewhat sharp. 3

**Texas-Ware "Bouquet"** (Plastics Mfg. Co., Dallas 10) \$8.45 for 5-piece place setting consisting of one 10-in. and one 7-in. plate, bowl, cup, and saucer. \$19.95 for 16-piece starter set consisting of 4 of each of the following: 10-in. and 7-in. plates, cup, and saucer. Two-year guarantee. Flat pieces were white translucent melamine decorated with floral pattern; cup and bowl, "color-on-color," same as "Nassau." Edges chipped more readily than most other melamine dishes. White pieces had somewhat dull surfaces. 3

**Texas-Ware "Nassau"** (Plastics Mfg. Co.) \$7.15 for 5-piece place setting consisting of one 9 $\frac{7}{8}$ -in. and one 6-in. plate, bowl, cup, and saucer. \$16.95 for 16-piece starter set consisting of 4 of each of the following: 9 $\frac{7}{8}$ -in. and 7-in. plates, cup, and saucer. Two-year guarantee. "Color-on-color" melamine, inner and outer surfaces of different colors. Thickest of all plates tested and had highest resistance to impact. Bowl rim somewhat sharp. Several pieces had some slight roughness where the two colors joined. 3

#### B. Intermediate

**Mallo-Ware** (Mallo-Ware Corp., Chicago 44) \$5 list price for 5-piece place setting consisting of 9 $\frac{1}{2}$ -in. plate, bowl, sauce dish (small bowl), cup, and saucer. (The set tested was bought at a supermarket for \$1.98.) One-year guarantee (but there is a 25-cent "service charge" for each piece replaced). Solid color melamine. Edges and surfaces were poorly finished. Less glossy than other melamine ware tested. 2

**Newport** (Bryant Electric Co., Hemco Plastics Division, Bridgeport 2, Conn., a subsidiary of Westinghouse Electric Corp.) \$3.20 for 5-piece place setting consisting of one 10-in. and one 7-in. plate, bowl, cup, and saucer. 16-piece starter set at price the same as the total of individual piece prices. Two-year guarantee. Solid color melamine. Surfaces were not as smooth as on other melamine dishes. Cup handles had sharp-edged holes too small for fingers. Except for cups, would warrant an *A-Recommended* rating. 2



Two "Commercial Standards" recorded by the U. S. Department of Commerce have been developed by the melamine dish industry. Either of the "hallmarks" shown above, if molded into a piece of plastic tableware, represents the manufacturer's claim of compliance with a standard—left, for "heavy-duty," right, for household use. There is no official enforcement machinery for ensuring that claims of compliance are true. The two standards include requirements for thickness (a little heavier for "heavy-duty" than for household use), finish, durability of decorations, and resistance to boiling dilute acid and dry heat. Requirements are not included for composition and impact resistance.

**Texas-Ware "El Capitan"** (Plastics Mfg. Co.) \$3.90 for 5-piece place setting consisting of one 10 $\frac{1}{4}$ -in. and one 6 $\frac{3}{8}$ -in. plate, bowl, cup, and saucer. \$9.95 for 16-piece starter set consisting of 4 of each of the following: 9-in. and 6 $\frac{3}{8}$ -in. plates, cup, and saucer. Two-year guarantee. Translucent solid color melamine. Thinnest melamine brand tested; had lowest impact resistance. Cup handle had somewhat sharp edges. 2

**Florence** (Proton Plastics Div., Pro-phy-lactic Brush Co., Florence, Mass.) \$5.70 for 5-piece place setting consisting of one 9 $\frac{7}{8}$ -in. and one 7 $\frac{3}{8}$ -in. plate, bowl, cup, and saucer. \$14.95 for 16-piece starter set consisting of 4 of each of the following: 9 $\frac{7}{8}$ -in. and 6 $\frac{3}{8}$ -in. plates, cup, and saucer. One-year guarantee. Solid color melamine. Pieces chipped off edge of dinner plate, possibly because of shape (more deeply cupped than other plates, with rim almost vertical). Rims were somewhat sharp. 3

#### C. Not Recommended

**Gothamware** (Gotham Industries, Inc., New York 1) \$3.95 for No. 23 Dinner Set consisting of 23 pieces, four 9 $\frac{1}{2}$ -in. and four 6 $\frac{3}{8}$ -in. plates, 4 bowls, 4 cups, and 4 saucers; creamer, sugar bowl, and cover. Solid colors. Translucent. Made of a relatively thin and flexible material, thermoplastic and easily ignitable, and was damaged by a burning cigarette. Lowest impact resistance by far of dishes tested, and *Gothamware* dishes were deformed in boiling dilute acid. One of two softest of brands tested and the one most scratched in the use test. Poorly finished and have sharp edges. In CR's judgment, these inexpensive dishes are not at all suited for table use but, in view of their low cost, might be purchased for use on picnics or for similar purposes. 1

**Hemcoware** (Bryant Electric Co.) \$1.43 for 5-piece place setting consisting of one 9 $\frac{1}{2}$ -in. and one 7-in. plate, bowl, cup, and saucer. 20- and 16-piece sets are listed at prices the same as the totals of individual piece prices. One-year guarantee. Solid colors. Cup, marked *Hemcolite-S.R.*, made from "Bakelite C-11," a thermoplastic material which was easily ignitable and was damaged by a burning cigarette (see photo, page 8). Other pieces made of "Beetleware" (a urea material) had a lighter "feel" than the melamine brands and a slightly rougher surface texture, and were slightly flexible. They were marked in the use test somewhat more than melamine dishes. Surfaces deteriorated in boiling dilute acid test. Except for flammable cups, would warrant a *B-Intermediate* rating. 1

**Tranquil** (Byrd Plastics, Inc., Erie, Pa.) \$2.70 for 5-piece place setting consisting of one 9-in. and one 6 $\frac{3}{8}$ -in. square plate (equivalent in area to about 10-in. and 7 $\frac{1}{2}$ -in. round plates), bowl, cup, and saucer. \$9.95 for 20-piece starter set consisting of 4 each of the above dishes. \$7.95 for 16-piece set, same as 20-piece set excluding bowls. One-year guarantee. Solid color "Bakelite C-11" (a styrene-acrylonitrile copolymer). Thermoplastic, easily ignitable and was damaged by a burning cigarette. Was deformed in boiling dilute acid. One of two softest of brands tested and second most noticeably scratched in the use test. 2



## The quality of vacuum-packed coffees

By JAMES DRIVER



UNTIL A YEAR OR TWO AGO, the housewife who bought a pound of vacuum-packed coffee might expect that the merchandise packaged in this expensive container represented an honest effort at least on the part of the manufacturer to put out a good blend. However, during the past two years and more particularly during the past 18 months, a multitude of new brands have entered the vacuum-packed field, and most of them are pretty poor coffee. In fact, one hesitates to speak of these poorer coffees as "blends." They are, rather, mixtures of low-quality beans, and the choice of ingredients has definitely been dictated by price.

Of course, each roaster had his own blend of vacuum-packed coffee, an individual compounding of various coffees that pleased him and, he hoped, would please his customers. He was proud of his coffee, proud of his expensively lithographed can, proud of the loyalty of his customers. Each brand was different, but in general, blends consisted of a high percentage of "Milds," coffees from Colombia, Mexico, and Central America, and of carefully selected Brazils of the better grades. Provided all the coffees

used were what the coffee trade calls "sweet," it would be hard to turn out a blend that was not pretty good, with these ingredients. Some of the regional brands were excellent, and even the big, nationally advertised brands were good coffees, in spite of the fact that their great size forces them to take "run of the crop" rather than careful selections of the beans available.

There was a good deal of brand loyalty, too. Housewives bought the same vacuum-packed blend week in and week out, and price was a secondary consideration. Then in the second half of 1949, the price of green coffee skyrocketed 20 cents a pound. This meant that, what with shrinkage (coffee loses about 15 percent in weight during the roasting process), higher charges all along the line, ocean freight, insurance, inventory, interest, handling, wharfage, and all the other expenses in connection with importing raw coffees, costs of roasted coffee just about doubled. Coffee became a closely scrutinized item in the family budget. It also became a commodity useful to the grocer to lure customers to his store.

Loss-leader sales of coffee, with the loss charged off to advertising, became the order of the day. In some sections of the country, the housewife, ever since 1950, has been able, by taking advantage of "week-end specials," to buy vacuum-packed coffee of good quality (not always her favorite brand, of course) at less than the grocer's wholesale cost. What's more, she has done so. The old concept of coffee brand loyalty became largely a matter of history.

The new devotion to price, together with the gradual deterioration of the American taste in cookery due to the can, the freezer, and the magic of the word "instant," led certain enterprising businessmen to appraise correctly a new coffee situation. They saw the soluble coffee business grow from about 8 percent of the total coffee business in 1948 to nearly 23 percent in 1954 (in 1956 it was close to 24 percent), which indicated a significant erosion of the American taste for good coffee. Soluble coffees do, indeed, make a potable beverage, but people who buy them do not really expect coffee; they expect and get a coffee-colored drink that is hot and wet and has a flavor resembling that of coffee. The coffee merchants reasoned that if people



Two brands of coffee that are outstanding blends today. Other good coffees according to Mr. Driver are A & P "Bakar" and "Eight O'Clock," Hills, Folgers, and Maxwell House.

could tolerate the solubles in place of real coffee and if they were willing to abandon their long-time favorite brands in favor of price, then a cheap mixture in a fancy vacuum can might be just what the public would go for. The result was the secondary or price-determined vacuum-packed ground coffee.

The solubles and these cheaper coffees have profoundly influenced the coffee industry. Both can and do use Robusta-type coffees, which today are about half the price of Colombians and about 25 cents a pound below good grades of Brazils. In 1948, those countries belonging to the Pan American Coffee Bureau, which produce most but not all of the fine coffees of the world, provided 96 percent of all U. S. coffee imports. Africa, the great bulk of whose coffee is in inferior grades, accounted for about 2 percent. In 1956, the Pan American contribution to our imports dropped to 86 percent, whereas Africa's share jumped to 12 percent. There have been increases in imports from Indonesia, Madagascar, and other areas producing Robustas. The second-string vacuum pack uses these inferior coffees lavishly. The better brands in the cut-price category are a mixture of about 70 percent cheaper Brazilian grades (mostly from the State of Parana) and 30 percent Robusta of whatever growth is running cheapest—yesterday Madagascar, today Indonesia, tomorrow African.

Here is how one roaster justifies these coffees: "With the United States using 20,000,000 to 21,000,000 bags per year, there is not enough coffee produced, grading strictly soft Santos fives upwards, to satisfy U. S. users alone. . . . If world demand for coffee is going to be satisfied, some number of people can buy higher grade coffee like (Brand X), other numbers buy grades well below, such as (Brand Y), and grades between these extremes. Or the whole level of

quality might be pulled down to a point between the extremes, which is not likely to happen. This does not mean the 'dregs' of quality such as some vacuum packers are selling cannot be avoided. Certainly they can and I can see no excuse for the extremely poor quality a few have been packing. On the contrary (Brand Y) has, on average, been at least drinkable."

For a coffee to be "at least drinkable" is scarcely the highest of recommendations, especially when the housewife has been trained to believe that vacuum packing guarantees a coffee of good grade and pleasing aroma and flavor. To an old coffee man like the author, it seems almost like a form of deception to pack low-quality coffees in the expensive vacuum tins. It certainly is the lowering of a proud standard, the crumbling of a tradition, and, worse, a disingenuous beguiling of the public into thinking they are getting something quite good, because of the fine package, when the product itself is really quite poor in quality.

### Corrections, please

In the article on fats at page 27 of the July BULLETIN, nuts were referred to as one of the considerable number of foods that it is desirable should be carefully limited in consumption. This recommendation has appeared in the literature of advice to persons who should go on a low-fat regime. However, nuts share with other "seed fats" a high content of the desirable unsaturated fatty acids. The following nuts have a substantial content of the very desirable linoleic acid: filberts (17%), walnuts (50-70%), hickory nuts (16%), pecans (16%).

Nuts are of limited digestibility for some persons but, for those who can digest them well, they have the advantage of having a substantial content of protein of good biologic value. They are a concentrated source of calories, as fat, and therefore should be consumed in moderation by most persons. They contain a fair amount of the vitamin B complex. They have the advantage of not containing cholesterol, which is one of the substances under suspicion as a cause for heart disease.

It is considered best to avoid so-called "roasted" nuts that have been processed (French-fried) in a deep-fat fry bath.

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The distributor of the *Paramount Air Compressor Model 20* (reported in the June 1957 BULLETIN, page 23), has advised that the stock of this model is completely exhausted and the compressor will no longer be available.



## Will your home be warm this winter?

*If you plan to install a new heating system,  
this article will help you to decide  
which kind is best for your needs*

IF YOU ARE CONTEMPLATING investment in a heating system for a new house, or replacing or up-dating an existing system, the kind of equipment that is best suited for your needs and the type of fuel available and economical in your community warrants serious study, since a heating plant is one of the most expensive single items in your home.

There is more to heating a house during the winter months than just producing heat. Comfort depends on temperature of the air, walls and floors, relative humidity, air movement, and absence of dust, dirt, fumes, and noise. Comfort means avoiding overheating some rooms, underheating others, unpleasant drafts, and

spotty heating. Regulation of air temperature, air movement, air cleanliness and moisture content require good control of the temperature of the air close to the walls, floors, and ceiling surfaces. Good regulation of temperatures requires that extra heat must go in the right amount to the places which lose heat fastest.

### **Choice of heating system depends on house design**

The design of the house will play an important part in the selection of a heating system. Split-level homes are poorly adapted to warm-air heating unless the system is carefully designed—

as it seldom is. With the living quarters open on two levels, it is almost impossible to prevent the higher level from becoming too warm, with the lower part of the house perhaps on the chilly side. A heating system that provides high heat capacity and low velocity of air circulation—for example, hot water with standing radiation, baseboard heating, or floor-panel heating—is recommended for split-level homes.

The first floors of basementless homes are likely to be cold and drafty at the floor level unless the right type of radiation is chosen. Baseboard or floor-panel heating is well suited to these types of houses.

Picture windows may often introduce serious heating problems. To minimize drafts and uneven heating where there is a big area of cold glass, baseboard radiation or the convector-distributed types of steam and hot water, with the use of heavy-duty units under the glass areas, should be used in preference to radiator or floor-panel heating or warm air.

### Heating equipment

Any heating system contains elements of compromise; each kind has its advantages and disadvantages. A thermostatically-controlled boiler or heater, hand fired with anthracite, is moderate in cost and hard to excel as a means for providing uniform heat. Oil and gas, and to a lesser extent stokers, operate intermittently, on an on-and-off basis. The result is often what is called a "cold 70" condition, with the room at 70 degrees but still uncomfortable, because the warm air has risen to the higher levels and cold air has moved to the lower levels of the room. Proper installation and adjustment and the availability of good and skillful servicing are important factors in the satisfactory operation of any heating system.

Steam is relatively inexpensive and simple to install. It delivers heat fast to the rooms, but, largely for this reason, calls for careful control to prevent overheating for short periods and to maintain temperatures at reasonably uniform levels. One advantage of steam is that radiators need to be only two thirds as big as hot-water radiators; and steam, too, is well adapted to heating the domestic hot-water supply. It is readily adapted to "zoned" or sectional temperature control and to large and even rambling buildings. A one-pipe steam system can be used if there is a cellar; a two-pipe system will be needed, with a motor-driven condensate pump, if there is no cellar.

Gravity hot-water systems are relatively quiet

but are slow in reaching maximum heating capacities. When up to capacity, the gravity system will supply heat at a steady rate, with less attention or need for control than any other system. Gravity hot-water systems are usually independent of electricity supply and should be considered wherever power system conditions are such that one may expect current interruptions of several hours or longer during severe winter weather. A gravity system requires somewhat larger piping than a forced-flow system with an electric-powered circulating pump.

The forced-flow system is necessary if domestic hot water is to be obtained from the main heater. Forced-flow hot water is the preferred system for radiant and baseboard types of radiation, which use small pipes. While a hot-water system of the gravity-flow type will function properly only in a house with a cellar, the forced-flow system does not require the difference in level provided by the cellar.

The large stored-heat content of hot-water systems assures relatively steady heat, and a good degree of temperature stability. While installation costs are greater for hot-water systems than for warm air, the former will likely require somewhat less fuel for operation.

Gravity warm-air is the most economical of all heating systems to install and is well suited for the small, compact, modern home of almost square design with a basement. The forced warm-air and gravity hot-water systems are next in economy of installation. Although, like gravity warm air, the forced warm-air system is limited to control by one thermostat, it is somewhat more flexible, and is better adapted to irregularly-shaped houses. Both types of warm-air heating are quick in response to temperature changes. Warm-air systems tend to circulate dust (filters are expensive), give somewhat spotty or changeable heat distribution, and room temperatures may change rapidly at times.

### "Radiant" panels

The now increasingly popular panel heating or "radiant" systems with heating coils in the floors, walls, or ceilings furnish an economical and unobtrusive way of heating, but the original outlay will be higher than with the older systems. The complete absence of any visible radiators or convectors is a convenient and space-saving feature. Air convection currents are held to a minimum owing to the low temperatures of the water in the system. The very best of materials and workmanship, with careful inspection and testing before piping is covered, must be employed because of the obvious difficulty and ex-



pense of repairing any leaks that may develop. Rapid changes in outdoor temperature are not easily taken care of because the heating or cooling of large masses of the floor and walls of the structure necessarily involves a lag between heat demand and the time the system catches up. It is difficult to provide extra heat in exposed areas, as at picture windows.

### **Baseboard radiation**

The newest radiators are in the form of finned tubes mounted behind baseboard-like moldings. With this type of radiator, forced hot-water systems have become more effective than old gravity systems with standing radiators, and more adaptable to zone control. Relatively low in first cost, installations are simple, pleasing, and unobtrusive in appearance. Baseboard radiation is most efficient and effective when the heating units are set around the periphery of rooms rather than along inside partitions; it does not work out well where winters are very cold. The radiator units must be carefully sealed at their line of contact with walls to avoid streaking of walls by rising air currents carrying dust. With this type of heat, it is often hard to find adequate space for radiation in kitchens. Extra heat can be provided by use of heavy-duty radiation.

### **Type of fuel**

The consumer who has at least a basic understanding of the principles behind the conversion of energy stored in fuel into heat, will be able to judge more easily the effectiveness of a particular kind of heating equipment, make comparisons between two or more fuels, and be in a better position to recognize misleading or exaggerated claims for efficiency or fuel saving.

The heating value of any fuel—coal, electricity, gas, oil—is expressed in British Thermal Units, generally abbreviated Btu. One Btu may be defined as the amount of heat required to raise the temperature of one pound of water one degree Fahrenheit.

Fuels most commonly used for heating homes are coal, gas, and oil. For each of these fuels, including electricity, total heat units per ton, cubic foot, gallon, or kilowatt-hour, and usable heating units, as well as heating efficiency, are shown in the table on page 15.

As can be seen from the table, the figures given in column 4 for useful heat units, except for electrical heating, are lower than the figures given in column 3 for total heat units. Losses in combustion occur with all fuels except electricity and all therefore have house-heating efficiencies below 100 percent, as shown in column 2

in the table. While electricity is converted to heat in the home at the full 100 percent efficiency so that the total amount of "fuel" purchased is employed usefully, the cost of electricity is so high that in only rare circumstances will it be utilized for the general heating of a home except in quite mild climates. When burning a fuel other than electricity, the useful heat is less than the total heat which the fuel contains by an amount equal to the sum of such losses as that due to incomplete combustion and heat that disappears up the chimney.

Since the price of a particular fuel will vary from area to area, it will be wise to obtain prices for those fuels you are considering and calculate how many Btu you can expect to receive for each cent you spend on coal, gas, oil, etc.

In order to calculate the useful heat units furnished by each fuel for one cent of expenditure, divide the "Useful heat units," given in the table, by the unit cost in cents. For example, to determine the Btu obtained for one cent from manufactured gas at 0.14 cents per cubic foot, divide 440, obtained from the table (row 6, column 4), by 0.14 cents which gives about 3140 Btu. For oil at 16 cents per gallon, the number of Btu received for one cent will be about 7090.

### **Oil**

If you decide on oil, give consideration to a tank larger than 275 gallons, to be buried outdoors. Burying the tank outdoors conserves cellar space, reduces fire hazard, lessens the danger of the spread of fire from another source, and with a 1000-gallon buried tank one can often get along with one filling during the heating season. The larger tank will also make it possible to take advantage of any summer price reductions.

An oil burner is wholly dependent upon a continuous supply of electricity and requires regular and skillful care by a trustworthy serviceman if it is to operate efficiently and safely. It should by all means be cleaned and serviced at least once a year by an experienced and competent person; the cost will likely be about \$15 for each servicing.

An oil burner is very easy to adjust to high efficiency on a test floor, but it is relatively hard to keep a burner in even approximately correct adjustment in the home. Maintenance of correct adjustment is especially difficult for very small burners where the orifices are so small that the slightest wear, clogging, or corrosion will easily change the relation of fuel flow to the air supplied for combustion. For this reason, frequent checks of an oil burner by a competent serviceman are desirable. With correct adjustment, the waste of fuel up the chimney should be



	1	2	3	4	5
		House heating efficiency, percent	Total heat units, Btu	Useful heat units, Btu	Unit of measure
<b>Heat value and house heating efficiency of various fuels</b>	Anthracite, hand	78.0	26,000,000	20,300,000	per ton
	Anthracite, stoker	75.0	25,000,000	18,750,000	per ton
	Bituminous	65.0	26,000,000	16,900,000	per ton
	No. 2 fuel oil	80.0	141,800	113,400	per gallon
	Natural gas	83.5	1,000	835	per cu. ft.
	Manufactured gas	83.5	525	440	per cu. ft.
	Bottled gas	83.5	90,000	75,200	per gallon
	Electricity	100.0	3,415	3,415	per kwhr

lower than with coal; much of this advantage, unfortunately, is offset by the fact that water inevitably formed by the combustion of the hydrogen present in all oil carries (unavoidably) some eight percent of the total heat in the fuel up the stack as superheated steam.

### Coal

Coal in any form is considered the safest fuel, since neglect or maladjustment merely results in the fire's burning low or going out without danger (except that pipes may freeze if the family is away in very cold weather). Usually the only precaution needed for safe operation is to be sure ample draft is available to prevent emission of noxious gases within the house at any time.

Basically, coal needs a higher temperature in the chimney or stack than most fuels, to provide the amount of draft that is needed. With a higher chimney temperature, there will be correspondingly higher losses of heat in the chimney. The house-heating efficiencies, where the boiler is in reasonably good condition, should lie between 78 and 83 percent with anthracite. Abnormally low efficiency is often found, however, usually due to excessive loss of unburned or partially burned fuel into the ashpit from broken or warped grates, excessive shaking, or to the use of coal too small for the mesh of the grate. Other preventable losses with coal include overheating of the house due to poor temperature control and high losses of heat up the chimney due to the infiltration of an excess of cold air through warped or broken furnace doors or other parts.

### Gas

Fuel gases are potentially the most efficient of all domestic fuels except electricity. This is largely because of the relative ease of controlling combustion accurately, the facility with which uniform control can be maintained in day-by-

day service, and ability to operate with a relatively low or moderate temperature in the chimney. However, a fact overlooked in most comparisons is that gas has the highest hydrogen content of any fuel, and from 8 to 12 percent of the total heat in gas is carried up the chimney as steam without any chance for reclamation of the loss. (Oil has the same type of loss, but smaller in amount.) Higher costs for gas in terms of dollars per million heat units are also to be expected than with most other domestic fuels. (This comment does not apply to natural gas, in most localities.)

Gas-fired burners are fully automatic, but should be checked at least twice a year. This is a service the gas company will usually provide at no extra charge. Gas is a cleaner fuel than either oil or coal.

Gas is, however, a relatively hazardous fuel; if the burner is poorly or improperly maintained, it can easily lead to violent, destructive, often fatal, explosions. In a gas burner, as with an oil burner, ignition is controlled and guarded by delicately adjusted devices. Safety controls are provided to prevent any further flow of fuel after the passage of a short interval of time needed for normal ignition, in the event of delay or failure of ignition. Such controls, as well as others, should be checked periodically by a competent person.

Despite all claims to the contrary, gas is the least dependable of fuels, especially at distances of hundreds of miles from either the wells or storage pools. Uncertainties of supply are particularly serious in areas in the Northeast or New England states. Any serious accident to transmission facilities or excessive demands rising above those contemplated by the designers of the system can jeopardize the gas supply of thousands of consumers simultaneously.



The General and Goodyear tires used in the test of the claims in General Dual's advertising.

## General Dual 90 tires

(Continued from page 2)

To find out whether *Dual 90* tires were as good as the advertisement claimed, CR purchased four white wall tubeless *Dual 90* tires, size 8.00 x 15 (list price, \$100.40 each) and four 100-level *Goodyear* tires of the same size (list price, \$31.95 each) to use as controls. It should be noted that the price of *Dual 90* tires is extremely high, about twice that of a regular white wall tubeless *General* tire.

Motor Vehicle Research, Inc., South Lee, New Hampshire, an automotive research and testing institution which has had much experience in making road tests of automobile tires, were engaged to make these tests for Consumers' Research; the organization used a concrete "aircraft apron" and a relatively new crushed-rock-and-asphalt roadway as tire test surfaces.

### Results of tests

As driving at speeds of 95 to 105 miles an hour and making, or trying to make, panic stops as asserted in General's advertisements would be extremely hazardous to driver and car, and the matter did not seem to be one to warrant so great a hazard to personnel, exploratory trials were made at speeds of about 80 miles per hour. It was found that at this speed, when the car was equipped with the *General Dual 90* tires, the car went out of control in the two cases where it was possible to lock the wheels. In nine other stops, it was not possible to lock the wheels

in attempting to make the panic stops which were claimed to have been made by a driver working for General Tire & Rubber Co. In view of this experience and the very evident hazard of stops with these tires from 80 miles per hour, it was decided to make all further tests at a speed of approximately 60 miles per hour, in order not to subject the test drivers to needless risk of injury or death.

It was found that on the dry concrete airport apron from a speed of approximately 60 miles per hour, the test car, when equipped with *General Dual 90* tires, was brought to a stop in 166 feet; when the car was equipped with *Goodyear* regular tires, the stopping distance under the same conditions was 147 feet. On a dry crushed-rock-and-asphalt road, corresponding figures were 183 feet for the *General Dual* tires and for the *Goodyear*, 155 feet. On both types of road surfaces, the stopping distance with *General Dual 90* tires was found to be greater than with the regular *Goodyear* tires.

### Conclusions

The claims made in the General advertising for the *Dual 90* tire could not be substantiated even in a test at the greatly reduced speeds of 60 miles per hour deemed reasonably safe for the expert drivers participating in the tests of the tires.

The claims that there was no tread wear or distortion after severe emergency stops from 95 and 105 miles per hour in which the tires momentarily caught on fire could not be substantiated, for in CR's tests, severe damage occurred at the much lower speed of 60 miles per hour. Such claims were, on their face, insupportable. In fact, at the 60 miles per hour speed, with wheels locked, almost one quarter of the thickness of the tire treads of both the *Goodyear* and *Dual 90* tires were worn off at the areas of the treads in contact with the road in a single stop. The poor condition of the tires at the conclusion of the tests will be evident from the fact that the most any of three reputable tire dealers would pay for the very slightly used *General Dual 90* tires was \$10 each. One of the dealers would not buy the tested tires as used tires at any price.

The *General Dual 90* tires are not recommended; their advertising was considered misleading and objectionable from the consumer's point of view, for it would tend to give car owners a wholly unwarranted opinion of the safety of driving at extreme speeds; if anyone were moved to follow the implied suggestions in the advertising that panic stops can safely be made from speeds of 95 and 105 miles per hour, he might easily suffer grave injury or death.

No automobile or tire advertising should ever talk about such speeds as though they were possible and practicable and as though one would ever be warranted in driving at 100 miles per hour or in attempting to stop with extreme application of the brakes from such a speed.

Some of the most recent *General Dual 90* advertising has been fairly conservative, as tire advertising goes, and in the latest ads no claim is made other than the assertions, usual in the tire

industry about outstanding superiority, that the tire excels all others, and will out-perform and outlast any other make. Perhaps General Tire & Rubber Co.'s advertising department has been persuaded that the old-fashioned advertising which just "claims everything" in general terms is safer, or less likely to offend intelligent readers, than that which makes exaggerated claims that might be subject to refutation by competitors or others.

## Fatal accident involving a television receiver

### *An open letter to*

### *television receiver manufacturers*

A FEW WEEKS AGO a 6-year old boy was killed by electric shock when he casually brushed against a metal cart on which a newly purchased 1958 model portable General Electric television receiver was sitting. His death was not necessary; we are sure that his parents would gladly have paid the very few extra dollars required to make the set relatively safe electrically, had they but known that the price of television entertainment might, in their case, be deadly danger to a child. The responsibility for the unsatisfactory designs of some of today's television sets, particularly the small portable sets, does not, of course, lie alone with the General Electric Company, for it is standard practice in the television field to build most of the portable receivers with metal cabinets, metallic rectifiers, and with great emphasis upon light weight and extreme compactness of the cabinet. All of these factors are antagonistic to obtaining the maximum degree of safety against shock. A wood or plastic cabinet, for instance, would have made the accident impossible, or at least unlikely, but it would have cost a little more than a cabinet made of sheet metal. The use of an isolation transformer in the construction would also have provided a safeguard, but that might have added about \$10 to the price of the set and a few pounds to its weight.

In most of today's radio and television sets, the only barrier between the wiring at dangerously high voltage and the metal cabinet is a small resistor or condenser. Such a component will occasionally break down and permit a short circuit. Every effort should be made to develop

a design that would "fail safe," which means that the set would be out of commission but not in condition to cause shock to a user.

In December 1956, Consumers' Research printed this warning: "The danger of a bad shock or even electrocution of the user is ever present when any TV receiver is used, particularly out of doors. One might expect that, when designing a portable, the manufacturer would be acutely conscious of this possibility and provide safeguards in his design which would avoid the danger, so far as is humanly possible. Makers have not done this, however, for all of the portables tested except the *DuMont* had metal cabinets and several, in addition, had one side of the input power line connected to the chassis inside the cabinet."

All we can do is tell our readers of the danger. You manufacturers could come to agreement jointly through your national organization, the Electronic Industries Association, to cease manufacture of radio and television receivers employing the potentially dangerous construction and design very briefly outlined in this letter. You should bear in mind that a listing by the Underwriters' Laboratories does not and should not remove responsibility from the manufacturer to do the best that is possible to design against electrical and fire hazards in all practicable ways. The record of your industry on the whole, from the standpoint of electrical safety, has been excellent, indeed remarkable, but there are some changes that need to be made and your industry's leaders should act soon, before other persons shall be subjected to a sudden, fatal shock.

# THE FOOD YOU EAT

*and the way it was treated or modified  
by growers and processors may be a cause of  
cancer in later years or a help in preventing it*

NOT MANY YEARS AGO, anyone who suggested that an important cause of cancer might be found in our modern diet and in some of the peculiar and highly unnatural chemical substances which we all consume in "store foods" ran the risk of being called a quack or sensation-monger. At the present time, professional men of the highest repute in medicine and related sciences are raising serious questions regarding the hundreds if not thousands of foreign or synthetic substances, drugs, and chemicals which get into our food supply in one way and another—by intent, or as by-products of some agricultural or manufacturing process.

One distinguished medical pathologist recently informed his scientific colleagues that several widely-used food dyes caused cancer when injected under the skin of rats used as test animals. Certain dyes that are used in coloring margarine and butter were so toxic that the test animals died before there was opportunity to see whether cancers would develop in due time. It was noted that the harmful dyes had not been prohibited by governmental order to prevent their use in future, and there was no indication that such a step was under consideration.

A leading researcher in the field of cancer, Dr. W. C. Hueper, has said that "The actual or possible existence of cancer hazards related to carcinogens [cancer-causing substances] in food-stuffs...poses a serious public health problem, since the daily and lifelong exposure to such agents would represent one of the most important of the various potential sources of contact with environmental carcinogens for the population at large, acting on both the healthy and the sick, the metabolically normal and abnormal alike."

## **General view of food adulteration and sophistication**

Dr. Hueper and others have listed the many ways in which extraneous chemical substances,

"All diseases are caused by chemicals, and all diseases can be cured by chemicals. All the chemicals used by the body—except for the oxygen which we breathe and the water which we drink—are taken in through food. If we only knew enough, all diseases could be prevented, and could be cured, through proper nutrition."

...As tissues become damaged because they lack the chemicals of good nutrition, they tend to become old. They lack what I call 'tissue integrity.' There are people of 40 whose brains and arteries are senile. If we can help the tissues repair themselves by correcting nutritional deficiencies, we can make old age wait."

DR. TOM DOUGLAS SPIES,  
at the 1957 Annual Meeting  
of the American Medical Association

• • •

"Anyone who speaks up against food adulteration in any of the many forms is subject to 'name calling.' The most common epithets are 'food faddist' or 'food fakir.' If you object to spraying foods with poisonous chemicals, picking fruits green and then applying a dye, to injecting or administering antibiotics to poultry and dairy herds, to removing minerals and vitamins from natural foods, to adding chemical adulterants to preserve foods from normal chemical changes, you are offending...some of our largest and most influential corporations...we can be certain that the public relations counsellors will go to work to change the situation—even if that requires a bit of character assassination directed against those who are in the opposition."

...Every time that a natural substance is removed from a food, every time an adulterant is added to a food, the balance in nature is disturbed...The chemical and cellular processes within the body cells cannot react to the passing whims of chemists without disturbance in function. It took thousands of years for the body to adjust itself to changing environmental conditions. When these conditions are suddenly altered by the actions of men, the cells cannot make the adjustment—disease is the result.

DR. EDWARD J. RYAN,  
Editor, Dental Digest, Evanston, Ill.





wanted and unwanted, get into our foods. *There are something like 20 different categories of food additives.* Some of the more important of these are antioxidants of fats and fatty substances which are used to keep fats and prepared foods containing fats from becoming rancid; synthetic sweeteners (one that was used for a time—Dulcin—was found to cause tumor formation in the livers of rats); chemical flavoring agents (artificial flavors); preservatives and sterilizing agents; shortenings, particularly hydrogenated oils and fats. (See the July 1957 BULLETIN.)

High in importance among food additives are synthetic dyes, usually made of coal tar, and, as such, quite foreign and unnatural substances, with which the body is unequipped to deal.

Besides these there are the unintentional, sometimes "commercially unavoidable," contaminating substances present in foods, which are residues from insecticides, fungicides, and other potent chemicals used in agriculture, in wrapping and coating materials, and detergents. Potent sex hormones or estrogens, such as stilbestrol, may be present in poultry and meats in small quantities. These drugs are used by

farmers and cattlemen in artificial feeding processes to which meat animals and poultry have been subjected to increase the rate at which they acquire weight and become marketable. In another important category are antibiotics which are fed to food animals, also as accelerators of growth and development, and in many instances are added to dressed poultry directly, as preservatives to delay bacterial deterioration. Use of the same substance for fish is permissible in Canada, and plans are under way to delay the spoilage of meat by the same method.

It is a little known fact that under the present food and drug laws many ingredients whose safety is not known and has not been established by careful series of experiments over a long period of time are being freely used by manufacturers of canned and packaged foods. *There is no requirement that food processors shall first obtain approval from state and federal governmental or other independent, noncommercial experts and authorities in the fields of toxicology and medical pathology.* The substance may continue to be used until sufficient evidence has been produced, perhaps by the injury or death of persons consuming the food product, that it is in truth poisonous or deleterious in a way that will convince a court.

The history of food and drug adulteration is rife with instances where a toxic substance has been used and later found to be dangerous to health or even to life. Among these are nitrogen trichloride (Agene) used for 30 years as a flour bleach, discontinued in 1949 after animal experimentation done in England (not by the English or American food and drug administration) had proved that the material was dangerously toxic; thiourea and dihydroacetic acid, both poisonous, and the first a cancer-causing agent besides, were used for a time as preservatives and mold inhibitors.

Several hundred chemical compounds are known to produce cancer in animals, when fed, injected, or applied to the skin. At the present time no chemist can say with certainty that a given chemical food additive or contaminant will not produce cancer in some persons under some circumstances and after a period of time.

Diethylstilbestrol is a synthetic sex hormone which has been extensively implanted in the necks of poultry to bring about rapid growth and fattening. The results of this biochemical caponizing process are similar to those obtained by surgical castration of the male bird, but the chemical method is simple and cheaper. No one knows about the effects of long-term ingestion of minute quantities of diethylstilbestrol, or the



## MOUTH CANCER TIED TO DEFICIENT DIETS

Lack of Proteins, B-Complex Vitamins Called 'Important Predisposing Cause'

Observations show, he added, that a diet high in proteins, vitamins and minerals, low in carbohydrates and moderate in fats is an essential prophylactic measure as a preventive against the development of cancer of the mouth and possibly cancer in general. Care should be taken, he continued, to limit the total caloric intake to the individual's needs, namely, to avoid overweight.

## FOOD AND CANCER

The Suspicious Chemicals in Your Marketbasket

Cancer. Nutrition can be the dominant factor in regard to the incidence of spontaneous or induced tumors in experimental animals. For example, low caloric intakes, low fat intakes, and a relatively high intake of members of the vitamin B-complex are beneficial in standard strains of albino rats.

Fat Breakdown Products Found Cancer-Forming

substantial quantities that would be consumed in instances where the pellet had not been fully absorbed in the animal. Sixty percent of chickens examined in one study were found to contain unabsorbed portions of diethylstilbestrol pellets, and in one case 50,000 pounds of chicken so treated were seized and condemned as unsafe for human consumption. (Canada does not permit the hormone treatment of poultry.)

Similar substances are being used to increase the rate of growth of farm animals raised for milk and for slaughter. Incidentally, the cancer-producing tendencies of both natural and synthetic estrogens and their striking effects on the sexual physiology of animals are well established.

### The food dyes

The food dyes are in a special class; they are derived from a class of chemical substances which from earliest periods of toxicological research were known to produce cancerous growths in dye-plant workers. Use of one food dye

mice or rats. Nevertheless, it has not been established that the feeding of heated fat, cholesterol, or irradiated cholesterol will cause cancer of the stomach in the experimental animal. However, P. R. Peacock (23) observed a cancer of the stomach to develop in one of 6 rats when some croton oil was added to heated (350°C.) cottonseed oil. The fact that one can demonstrate carcinogenic substance in heated fats (to the point of browning) by subcutaneous injection should render them suspect when taken daily over years.

MEDICINE

## Link Hot Foods to Cancer

Drinking or eating very hot food may injure the lining of your stomach and predispose you to stomach cancer, which claims 45 percent of all cancer deaths.

Arsenic acid and 2-nitro-4-hydroxyphenylarsonic acid are now widely used in feeds for chickens, turkeys, and swine to improve growth, appearance, and feed efficiency.

### Cancer Is Traced To Food Additives

Experts' Symposium in Rome Lists Many Dyes, Flavors, Preservatives as Unsafe

ASK LEGISLATIVE CURE

### U. S. DYE STUDY HELD INADEQUATE, UNSAFE

WASHINGTON (Science Service) — Seven scientists have reported that the Government's research program on coal-tar dyes used to color food, drugs and cosmetics is inadequate and constitutes a danger to the public.

## Diet Habits Called Factor In Degenerative Diseases

Dr. Charles Glen King, scientific director of the Nutrition Foundation, Inc., said in his annual report yesterday to the board of trustees that there is "clear evidence at hand showing that food habits have a significant bearing on the incidence of degenerative diseases that beset a large fraction of our population prematurely."

## LAW CHANGE ASKED IN FIGHT ON CANCER

Health Official Advocates Tests of Chemicals Added to Foods and Cosmetics SOME DYES ARE SUSPECT

Dr. Hueper Also Sees Hazard in the Heavy Use of Carbon Black in Eyebrow Pencil

DIETHYLSTILBESTROL PELLET IMPLANTS FOR BEEF AND SHEEP

Diethylstilbestrol pellet implants for beef cattle and sheep are receiving much attention by researchers and experiment stations. The Food and Drug Administration has already approved sale of pellet implants by some manufacturers.

## Stilbestrol for milkers?

When dairy scientists from all parts of the country get their heads together and "talk shop," dozens of new ideas and discoveries pop out.

## Fats in Frying Induce Cancer, Doctors Believe

CHICAGO, Nov. 14 (AP) —

## SCIENCE IN REVIEW

German Scientist Links Incidence of Cancer To the Use of Coal Tar Dyes in Food

(butter yellow), formerly widely used, was discontinued after it was found by investigators in Japan (not in the U.S.) to produce malignant tumors in rats and mice. Several other food dyes used in candies, soft drinks, sausages, and the skins of oranges have been "de-certified" recently, because after many years they were discovered to have poisonous properties, and some others, FD&C Yellow Nos. 1, 2, 3, 4, are expected to be unless manufacturers prevent this by legal action or pressure on the food administration. Two of these are in extensive use to color butter and oleomargarine. A surprisingly large number of dyes thought to be entirely safe were found in recent years to have carcinogenic properties, when tested on rats and mice. The only practicable solution for these grave problems is to prevent the contamination, beginning now, in 1957, with substances of unknown untested, or uncertain safety, and to prevent the use as foods or in relation to foods of all materials that have been exposed to the contaminat-

ing or toxic or uncertain chemical substances.

It is well to bear in mind that not a single one of the accepted dyes is known to have been sufficiently studied "to satisfy the agreed criteria of safety" set forth by an International Symposium held in Rome in August 1956. (An adequate test of a single dye suspected of having cancer-causing properties requires no less than seven years' work.)

An important and ever-present possibility of cancer-causing substances in our foods is in the modifications produced in fatty materials by excessive heat, resulting in charred or tarry carbonaceous matter produced on meats, fish, and poultry that are grilled or roasted at too high temperature or for too long a time, and on bread or biscuits which are browned excessively in toasting (or even in baking). All cooking oils or butter that have been overheated or browned by heat should be discarded, never used. The beginnings of cancer may be in an overheated ryan.

A special difficulty in the knowledge of cancer and its origins is that the manifestation may appear many years after the cause is introduced into the system. In dye factory workers, 20, even 30 years elapsed after exposure before bladder cancers developed.

As to food dyes, test work is especially difficult and expensive, and calls for the services of scientists of the highest qualifications—more such scientists by far than are available. It is said that, under present conditions, it would take 25 years to test by modern scientific techniques all the food dyes now being used. Some of these dyes have been listed as approved since 1939 and 1940 when the methods of research were primitive compared with those that are now applied. One hundred and sixteen dyes are certifiable under the Food, Drug, and Cosmetic Act. Of the 19 certifiable for food use, only 15 have been researched since 1945, and 101 of the full list of 116 have not been intensively studied.

Dr. William E. Smith of Englewood, New Jersey, a well-qualified cancer researcher, has said: "It is simply not in the public interest to expose consumers to the unforeseeable risks of a host of biologically foreign food additives that may provide eye-appeal or advertising values but offer no nutritive benefit." Referring to the cancer-inciting drug, diethylstilbestrol, used in the artificial caponizing of poultry, he reports that marketed poultry has contained per bird up to 342,000 times the amount of the drug which sufficed, as a daily dose, to induce cancer in mice.

Dr. Smith noted that a cancer-causing dye

formerly used in foods and drugs did not induce cancer in well-fed test animals but would induce cancers in animals on less adequate diets, and he observes that the purveyors of food containing a carcinogenic substance cannot control the diet of those consuming their products. In one striking case which he has brought to public attention, the Food and Drug Administration attempted to prevent contamination of food by a certain pesticide. A manufacturer of this chemical filed a petition asking that this substance be permitted to be present to a small extent in food materials on the ground that while tumors had been caused by the chemical in rats, the substance might be safe if fed in much smaller amounts.

Accordingly, the Food and Drug Administration issued an order tolerating residues of the insecticide in a large number of fruits and vegetables; it did, however, require that none of the substance should be present in forage to be consumed by animals. Thus, as Dr. Smith aptly remarks, the regulation means that we consumers can be obliged to eat the cancer-causing substances, but a cow cannot!

Most factors in the food industry, including trade associations and trade journals, take the attitude that whatever the chemical industry turns up and persuades food processors and restaurant operators to employ as a food additive should be accepted by consumers without criticism or complaint, and that governmental action to discourage the use of substances of unknown toxicity now employed in making foods and beverages will tend to prevent progress, dry up research, and add to costs of manufacture and distribution. There is a considerable degree of unanimity in the food trade and related journals in attacking those who are aware of the dangers of chemical additives; they are regarded as headline seekers who should be slapped down and made to appear ill-informed or full of needless fears and phobias.

One of the major causes for the wide inclusion of chemical agents in today's foods has been the enormous popularity of foods which are ready-prepared or require a minimum of preparation and processing in the kitchen. Many cakes, cookies, candies, and ready-prepared or ready-to-heat-and-serve foods would not exist and remain salable for weeks or months except for the newer chemical additives. The chemical industry has been most active and ingenious at devising and supplying every sort of additive substance to improve and maintain the salability and good appearance of commercial and packaged food products. Especially to be questioned

are those which keep the product from becoming stale in flavor or losing its good appearance with time or lack of refrigeration, to permit it to have a longer life on the shelf or in the freezer or refrigerator, before off-tastes and odors develop. Many consider the wide use of such foods to be an element of modern scientific and industrial progress, but it may be questioned whether it is progress when 600 to 700 persons die every day from cancer and when one person in every four may expect to contract cancer at some time of his life and when there will be a case of cancer in about two out of every three families.

It is known that diet is an important factor in preventing the development of bodily conditions that tend to favor the beginnings of a cancerous condition, and with care and a willingness to go to a little extra trouble, we can modify our eating habits in ways that will tend to reduce the likelihood of cancer's striking us and our families.

For the consumer who wishes to avoid needless risks in his diet, we may give the advice that one should avoid: oranges and white and sweet potatoes and nuts that have been dyed or colored; margarine colored by anything other than carotene (which is a natural substance or a manufactured one close to a natural substance contained in certain foods). One should avoid all caponized poultry, and especially avoid the use of any part of the necks of chickens and turkeys; all dyed foods, which includes many highly colored desserts and bakery products, particularly those sold in packages in groceries, chain stores, and supermarkets, for these contain also various substances of uncertain safety intended to give the product a very long shelf life. Avoid all burned fats and fatty foods, especially overtoasted bread and buns, overbroiled steaks, hamburgers, and chickens, and especially, remove carefully, before the food is eaten, any charred or tarry carbonaceous matter that may be in evidence.

Overbroiling of the edges and surface of steaks, chops, and hamburgers is a common practice, even in the best restaurants, and many epicures like a steak or chop whose surface is black and burned by the fire. Discard at once all fats which have been overheated, particularly fats that have been heated to the point of turning brown.

Drinking and obesity both increase the tendency to cancer. The habit of using too much of fat, starchy, and sugary foods (a diet high in calories) instead of the high-quality protein foods, meat, fish, eggs, and natural cheese, also tends toward producing conditions favorable to development of cancerous growths. An ample supply of good protein foods and use of foods

rich in the B-complex vitamins can help to prevent development of cancer and other diseases.

Use of foods and beverages that are too hot, and overuse of spices are strongly suspected as possible causes of digestive tract cancer (the type that is most dangerous and deadly in men). The effect of cancer-starting substances in the diet is known to be increased by an excessive intake of fats.

In general, the consumer will find it best to stick as closely as possible to food products that have had a minimum of factory processing and contain the fewest possible adulterants of the sorts used to delay staling, add color, enhance flavor, improve consistency, etc. Get in the habit of reading labels, and when the food or beverage label contains a list of substances of which perhaps several are unknown to you or are obviously the product of a chemical laboratory (rather than the kind of substances that would be used in the home kitchen), it would be well to do without that product, so far as practicable. In its place, one would be wise to choose a less "sophisticated" food, that is closer to nature. This point of view greatly annoys some food manufacturers who think, in spite of the bad history of a score or more of food additives, that one should trust manufacturers completely for the safety of everything their chemists may think of in the way of preservative, color, texture modifier, artificial flavor, flavor improver, or what not.

Since so many uncertainties exist, and so many food additives are employed for appearance or convenience in manufacture, or for durability, and do not add nutritive values, the reasonable procedure is to avoid foods containing them whenever possible, and to tell your state and federal food control agencies and your Congressman that you wish much tighter, more consumer-minded control of food processing and prepared-food ingredients. You may wish to tell the manufacturers, too, what you think of the unfamiliar chemical ingredients, dyes, flavors, and preservatives that they use, and if you care to send a copy of your letter and the manufacturer's reply to Consumers' Research, we shall be glad to have it. One final word—since out of six who contract cancer four will die of the disease, cancer is clearly not a disease to be trifled with, and if there are steps that can be taken to prevent it in some or in many cases, there is every reason to go to any amount of trouble to that end. People should not regard the use of foods containing new and unfamiliar additives as a mere harmless experiment to be accepted as one accepts a change in the weather or in the colors of this year's cars.

## Travel and camping trailers

TRAVEL TRAILERS are on the upswing in popularity, especially in the western part of the country. A ranger in a camp in a western national park has reported as many as 700 in the camp at one time. The industry considers trailers of 24 or 25 feet and less to be "travel trailers." Models up to 35 feet are frequently drawn by passenger cars, but these the trade generally calls "mobile homes." Travel trailers are intended to provide eating and sleeping space for persons traveling and living only temporarily in one location. The range of facilities in travel trailers is all the way from a canvas-covered box to a well-built body with all home conveniences, including a sewage tank.

The building of travel trailers requires only relatively simple skills and tools, and not much capital. These conditions encourage many to start in the business. Some new manufacturers make a few units and go out of business. Their units may be well built, in fact, too well built for them to be able to compete on price with other and larger manufacturers. On the other hand, although service by the manufacturer is seldom required, the consumer should prefer to have someone around to stand back of the product. From the buyer's standpoint, it is better that the maker should have had considerable experience making the small size trailers.

Some trailer owners attach much significance to having the trailer body not exceed 6½ to 7 feet in width so that it is not wider than the towing vehicle. Consumers' Research's consultant has found no particular disadvantage with a body as wide as 8 feet when extension mirrors are used on the tow car. The extra width allows more space without adding to the length of the body.

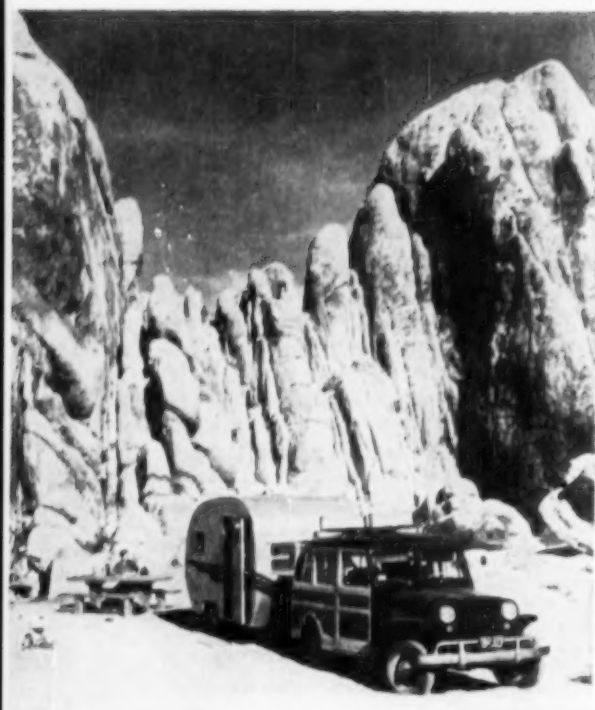
Usual models of travel trailers have rigid bodies from 8 feet to about 17 feet long and 6 feet to 8 feet wide. The length given in manufacturer's and dealer's specifications for a trailer is the total length of the body and frame. The frame extends from 2 to 3 feet in front of the body. A 15-foot trailer has a body length of about 12 feet.

Usual equipment for small trailers includes: bottled gas cooking plate (usually two burners), icebox, dinette (convertible to a bed), double bed, sink, wiring for 110-volt electric lights and appliances, cabinets, and storage space. Dinettes

### What to look for when buying a camp trailer

1. About 10 percent of the total weight should be on the hitch.
2. Box construction should be sturdy.
3. Heavy canvas should be used.
4. Canvas should be fastened strongly and at frequent intervals.
5. The frame for the canvas should be sturdy, and erecting and collapsing the frame should be conveniently done.
6. The location of frame members should be such as to allow free movement inside the structure.
7. There should be free entrance to the trailer without danger of bumping one's head.
8. There should be screened openings for ventilation.
9. Direction signals, taillights, and license holder and light should be provided.
10. Space for carrying bedding, cooking equipment, and food should be handy and well arranged.
11. Cooking equipment and food-carrying space should be accessible when the outfit is in the collapsed position for traveling.
12. The running gear should be attached to the body with springs adequate for the load carried. Some persons may think springs are unnecessary, but a "sprung" load rides much better in the trailer and gives less jerk and bounce to the towing vehicle.
13. Brakes, while not required by law on trailers of light weight, are a safe and useful feature.





Trailers go everywhere these days.

are 36 to 48 inches wide. The narrower widths make a good single bed for an adult or a bed for two small children. The 48-inch dinette makes a comfortable bed for two adults. Additional equipment is available at extra cost, including a bunk bed over the double bed, gas light, and a water tank with a pump at the sink. A combination ice-electric, gas-electric, or a gas refrigerator can replace the icebox. Some of these trailers have a 6- or 12-volt light which can be attached to a car battery as standard equipment, while some list this as an optional item. With this equipment, one can have the necessities for living wherever toilet facilities can be found outside the trailer, or a portable toilet can be used, which has a disposable plastic bag.

The small trailers are widely used in mountain areas where hauling on long or steep grades is necessary. They accommodate four to five persons. A trailer should have a dinette large enough to seat comfortably as many persons as the trailer has sleeping facilities for.

"De luxe" models provide more home conveniences than the standard models. They usually include toilet, shower (sometimes a bathtub), water heater, space heater, and choice of sofa-bed or dinette. It is possible to add a water tank

with pump, gas light, sewage tank, and the various refrigerator choices listed above. These trailers are commonly used by owners who, in addition to using the trailer in travel, wish to live in the trailer for extended vacation periods of one month or more. With most of the above equipment, a de luxe trailer can stop for a limited period without dependence on any other facilities than space to park. Such a trailer is usually 18 to 24 feet in length and 7 or 8 feet wide, and can accommodate as many as six persons. Since the de luxe models are larger and heavier than standard models, they are a bit more difficult to tow in mountain areas. However, many skillful drivers take them just about anywhere they wish to go.

It is important in making sewer connections to the trailer to have the trailer sewer line easily accessible without need to crawl under the trailer. On some trailers, the sewer hose can be connected by bending down and reaching under the edge of the body.

People who have experience with and like to go tenting may find it more convenient to sleep in a camp trailer than to pitch a tent. Camp trailers have collapsible metal frames which open up above the trailer box and hold a canvas cover. Some models open sideways and provide double-bed space on each side of the box. Others open endways and provide bed space on each end. Most of these models fold down to a box depth of 18 to 24 inches for traveling. Trailers of this type sell for \$400 to \$1000, depending on size and equipment included. One is made with a fiber glass body and has a top with canvas sides. This costs about \$1500.

"Convertibles" are special bodies with travel accommodations made to be carried on pick-up trucks. Several manufacturers make these units in sizes to fit one-half-, three-quarter-, and one-ton trucks. The bodies are usually "convertible," in the sense that they can be set in the truck box or removed in a few minutes. Accommodations in these bodies are similar to those in standard-model trailers; cooking facilities, eating space, and sleeping space for two to four persons are provided. The bodies are wide enough for bunks crosswise and high enough for an adult to stand upright. When windows are provided for viewing and ventilation, passengers may ride inside this body. Prices on these "convertible bodies" begin at \$250. Some convertible bodies are available as "kits" for a half-ton truck at \$310 and a three-quarter-ton truck at \$360. The owner can do some assembling and finishing on these kits. Larger bodies built on the truck, and with more facilities, are available at about \$800 to \$1200.



The information on the underframe, wall, top, and floor construction and insulation of mobile homes which appeared in the April and June 1957 issues of CONSUMER BULLETIN applies within reasonable limits to travel trailers. The information on the safety of wiring and appliances also applies. A somewhat higher cost of operation of gas refrigerators may be offset by the convenience of having gas refrigeration and cooking where electricity is not available. It is important that travel trailers should be strongly built, because hauling a trailer places strains on the body and frame which are not present when the trailer is standing in a blocked position.

Trailers with a gross weight of a ton or less can be carried on passenger-car wheels and tires. Trailers weighing over a ton should have truck-type (flat-base) wheels and truck tires. Wheel adapters are available for placing a passenger-car wheel on a truck-wheel hub. This can be of value in an emergency, for example, when a flat tire occurs on the trailer. The spare wheel of the towing vehicle may then be used to get to a service station.

The length of the spring base, that is the distance between spring attachment points to the frame, is important in determining whether a trailer will ride smoothly. Short, stiff springs naturally cause more jolting in the trailer than longer, softer springs. At least one manufacturer (Zollinger Trailer Co., *Va-Ka-Shun-Ette*) is offering a tandem axle on 21- and 24-foot trailers. The tandem axle provides a long spring base, reduces hitch weight on the car, and provides a smooth-riding trailer. With four wheels, small wheels can be used, providing adequate tire capacity without need of wheel wells in the body. Absence of wheel wells favors a desirable flexibility in interior arrangement of a trailer. One disadvantage of the tandem axle is that on some toll roads the fee is based on the number of axles, and thus a higher toll must be paid in these cases.

Some manufacturers provide undercoating (the same as on cars) in the regular price and others offer it at an extra charge. Since trailers are moved little on "salted" roads, there is less need for undercoating than on autos. However, in salt-air regions, undercoating may reduce rusting of the metal under-frame parts.

Many of the smaller trailers have but one door, and no window large enough for a person to get through. While it may never be necessary to use it, either an escape window or a second door should be provided on any trailer.

Electric brakes are required by some states on trailers over 1000 pounds gross weight. They should be present, too, on all travel trailers, for

greatest safety. Brakes are listed as optional equipment by most manufacturers on their low-cost trailers. A "break-away" switch is required in some states and many feel it is a good safety feature. It is a device that can be attached to any trailer, which automatically applies the trailer brakes if the trailer becomes unfastened from the towing vehicle. Our consultant considers a sturdy, safe hitch is essential on any towing vehicle, and when properly used, there is very little chance of trailer "break-away." Perhaps the break-away device would give some users a false sense of security. They may think that all is well without giving proper thought to the construction and use of a safe hitch, which is very necessary for the safety of other persons using the highway.

Many travel trailer bodies have wood studs in the wall construction and are covered with aluminum outside. On the inside of the studding, some have painted masonite while others have varnished plywood. The thickness and grade of plywood varies with the several makes and models. Insulation in the walls and top is important in hot weather as well as cold. Reflective foil is usually used under the aluminum siding. This is often combined with a blanket of fiber glass or similar material of  $\frac{1}{2}$ - or  $\frac{3}{4}$ -inch thickness. The insulation keeps the interior cooler in the sun and makes the trailer more comfortable at midday lunch time while traveling or when set up for camping or other use. The top is usually galvanized iron sheeting over wood rafters. The roof is usually coated with an aluminum-asphalt mixture for durability.

A few manufacturers make all-metal frames and bodies. This is durable but costly construction. The all-metal construction is sometimes of the "bullet" shape for less wind resistance. These manufacturers claim light weight as one of the principal advantages of the all-metal (mostly aluminum) construction, but weight comparisons with well-made wood bodies show little difference in total weight. The weight of the trailer makes less difference in towing than some people believe. When the trailer weight is greater than the weight of the towing car, it begins to be a considerable load on upgrades. However, the short-wheelbase towing vehicles used commercially are often light pick-up truck chassis, with light engines for economy, and are used to haul even the large mobile homes. In a test conducted by a consultant, it was found that nearly the same gasoline mileage resulted from towing an 8 foot by 33 foot trailer, a 7 foot by 16 foot, and a  $6\frac{1}{2}$  foot by 15 foot trailer, with the same passenger car. (It is difficult for an owner to make a scientific comparison of the

towing resistance of different trailers because one does not haul different trailers over the same road with the same car in the same conditions.) The towing resistance is a subject of much conversation, like the weather, and users' views are likely to be based on few facts and many opinions.

The exterior aluminum on some of the metal-body trailers is in narrow overlapping strips riveted at the seams. The strip construction is done to allow a rounding of the body at each end as well as to give a curvature to the sides from top to bottom. This construction requires much labor in manufacturing and therefore adds cost to the trailer. The rounding of the sides and ends gives less inside space for the total length and width of the body than a more nearly rectangular shape. Interior convenience is also sacrificed with rounded sides. For example, the bathroom, located in the rounded rear end of one make, is not high enough to permit a 6-foot tall person to stand upright. The limited height makes taking a shower very inconvenient. The washbowl is mounted just above knee height for a tall person. The space around the toilet bowl is very limited. The rounded wall construction is claimed by the manufacturers to produce less wind resistance in towing. One point claimed in advertising is that the trailer can be drawn as fast as the towing vehicle can normally travel, without whip or sway of the trailer. Smooth towing qualities are not at all limited to this body shape, but are the result of many construction factors as well as the hitch equipment on the car. The popularity of this type of construction probably results from the business practices of its principal manufacturer, *Airstream*, rather than from the shape of the body. *Airstream* is one of the oldest makes; it has consistently followed the practice of building a durable, sturdy trailer, and has carried on extensive advertising.

Several manufacturers offer a combination trailer and boat which can be used on both land and water. Caution is needed in considering the purchase of such a unit. One must make sure it does not leak. Some have given trouble in this respect.

A few people want a very light trailer which provides sleeping space for two and room to carry cooking equipment. The "tear-drop" trailers provide these accommodations in units which are usually only about 4 feet high and 10 feet long.

Some manufacturers will change the interior arrangement and equipment to suit the particular needs of a buyer at additional cost. However, so many designs and models are now offered by the many manufacturers that one can usually

find in a standard model the arrangement and equipment needed.

## Travel trailers

### A. Recommended

**Airstream** (Airstream Trailers, Inc., 12804 E. Firestone Blvd., Norwalk, Calif., and Box 514, Jackson Center, Ohio)

**Avion** (Avion Coach Corp., 1300 E. Empire Ave., Benton Harbor, Mich.)

**Boles-Aero** (Boles-Aero Inc., 3101 N. San Fernando Rd., Burbank, Calif.)

**Ideal** (Ideal Industries, 2328 N. Chico Ave., El Monte, Calif.)

**Terry** (Terry Coach Mfg., Inc., 11274 E. Rush St., El Monte, Calif.)

### B+

**Branstrator** (Branstrator Engineering Corp., 2330 Sand Point Rd., Ft. Wayne, Ind.)

**Fan** (Fan Coach Co., Wakarusa, Ind.)

**Holiday Rambler** (Klingler Products Corp., R.R. 3, Elkhart, Ind.)

**Shasta** (Shasta Trailer Co., 14635 Keswick St., Van Nuys, Calif.)

**Trotwood** (Trotwood Trailers Inc., 11 N. Broadway, Trotwood, Ohio)

**Va-Ka-Shun-Ette** (Zollinger Trailer Co., 112 By-pass and Nappanee St., Elkhart, Ind.)

**Yellowstone** (Yellowstone Coach Co., Wakarusa, Ind.)

### B-

**Sportcraft** (Sportcraft Trailer Mfg. Co., Box 181, Cortland, Ohio)

\* \* \*

The following are manufacturers of special types of small trailers which have not been thoroughly investigated and thus are not rated.

## CAMP TRAILERS

**Cargo-Camper**, 2300 E. Stratford Court, Milwaukee 11.

**Nimrod Equipment Corp.**, 2530 Spring Grove Ave., Cincinnati 14.

**Reliant Trailer Co.**, 5834 Backus Rd., Greenville, Mich.

**Spencer Sports Products**, Spencer, Wis.

## CONVERTIBLES

**C & B Mfg. Co.**, R. R. 1, Chanute, Kans.

**Comstock Trailers**, 820 N. 17 St., Parsons, Kans.

**Cree Coaches, Inc.**, Marcellus, Mich.

**King Kamp Koaches**, 9618 Valley Blvd., Rosemead, Calif.

**King Trailer Co.**, 437 E. Carson St., Torrance, Calif.

#### **TRAILER YACHTS**

**Neptuna Corp.**, 723 Sonora Ave., Glendale 1, Calif.

**Terra-Marina Mfg. Co.**, 3001 S. Wayside, Houston 23, Tex.

**Trail-it Coach Mfg. Co.**, 5830 Second Ave., Des Moines 13, Iowa.

**Yachtland—Stanley Mobile Homes**, Box 75, Dixon, Ill.

#### **TEARDROP STYLE**

**Tommy Tucker Trailer Service**, 12001 Biscayne Blvd., Miami.

## **"Flat rate" auto repair service**

SOME YEARS AGO one of the larger automobile manufacturers—Henry Ford, perhaps—launched something new in the way of service charges for work in his dealers' repair shops, a fixed charge for substantially every operation. In theory, it was to protect the owner against "loading" a bill with rainbow items or slowed-down effort by mechanics. . . a "ceiling price" for each typical repair and adjustment item. A splendid idea, and one long needed. Let's see how it has worked out, in my case.

A main bearing of an engine burns out. That's a serious situation, requiring some disassembly of the engine and a considerable legitimate outlay. While the engine is torn down, another interior defect is discovered and repaired, one that would also have involved partial disassembling of the motor. Then the bill. These operations are listed in the factory price, together with the approved cost—in both cases, of necessity, calling for the same taking apart of the engine; the same reassembly upon completion. Wha happen? You guessed it. BOTH prices were charged. This, naturally, included two taking-apart and putting-together jobs on the motor, though only one was executed. Justification?—The "factory price list."

On a smaller scale. It became necessary to replace distributor points on a car of another model by the same maker. "Have it done for you in ten minutes!" was the mechanic's assurance. Well, he nearly did. The car owner waited while the work was done. Very properly it included a washing of the distributor in the always present bucket of gasoline. The entire job—timed—consumed 17 to 18 minutes. Flat charge for points and replacement, of course. Atop of that, charge for "Labor—overhauling distributor—\$3.60!". Nice pay for half of 18 minutes' work. (And that's conservative.)

One more illustration. A sealed-beam headlight with one filament burned out. Aside from the quick and simple job of unscrewing and re-fastening the rim, the change of the lamp unit is

not much more trouble than changing a burnt-out electric bulb in a library lamp at home; allow another minute or two for adjusting the beam. Five minutes for the whole operation, at most. Labor? TWO DOLLARS. ("We can't control that. Price is fixed at the factory.")

Two dollars for five minutes. Charged for as "labor." Nice pay, if you can get it—and they CAN get it. They did—from me.

In fairness let it be said that inquiry elicits the fact that this practice is not confined to the products of any single automobile manufacturer. I am reliably informed that it is general throughout the automotive industry.

After many such experiences, of which these are not outstanding examples, I found an excellent mechanic in his own small shop. He doesn't loaf on the job, and he has no "floor" price list. His work is thorough; his charges adequate, but fair. Maybe the factory price, too, is fair—as a *top limit*. But as a *fixed* charge to be billed the customer regardless of time involved, its present application approaches the character of a "fixed racket." As for myself, I've hit the ceiling over it for the last time. I am taking my work where they have a fairer and more considerate system of charging for automobile repairs.

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## Underground sprinkler systems

IT IS NOW POSSIBLE for the average homeowner to enjoy the luxury of watering his entire lawn at once, without need to call for the costly services of an experienced plumber to install an underground watering system. The homeowner who is reasonably handy can do the job, with a very few tools, including a screw driver, sharp knife or saw, and a spade, and make the installation in a yard of moderate size, over a week end.

The pipe used in such a system is generally made of plastic, and is not subject to rust or corrosion. It can be bent around corners; it is not so readily damaged as metal pipe would be, by alternate freezing and thawing. The only metal used in most kits is in the brass sprinkler heads.

Important steps before buying and installing an underground sprinkler system include careful measuring and sketching of the lawn to scale, and laying out the proposed system on paper, taking into account the area that can be covered by each sprinkler head, which depends on the type and number of heads in the line, and the water pressure available. Then the system should actually be assembled and tried out on the surface before it is buried. At this stage, adjustments of sprinkler-head positions can be made so that a maximum area is covered with minimum waste of water. The manufacturer's directions should be followed faithfully.

A very important element of such a water system is the use of a vacuum breaker or anti-siphon control device at the water source for the system. This will prevent back siphonage of water into the domestic water system of the home, should the water pressure drop suddenly. The danger is that dirt, fertilizer, poisonous insect sprays or fungicides may be drawn back into the house piping and be discharged through drinking water faucets. The valve required may have to be purchased separately; such valves are not, unfortunately, included in most kits, though the manufacturers should certainly provide them, and tell their customers how important it is to use one.

Consumers' Research has had a *Homart*, eight-sprinkler-head system (Sears-Roebuck's Midsummer Catalog, 1955) in a section of its lawns for nearly two years. A *Homart* vacuum breaker valve, also recommended and sold by Sears, was used on the water line. The system adequately sprinkles an area of about 1000 square feet at a total initial outlay, including the vacuum breaker valve and postage, of \$27.27. (The price of the vacuum breaker valve was \$4.95.)

The *Homart* system has been entirely satisfactory except that, during the first winter, several of the sprinkler heads were forced up about an inch by the action of the frost (easily corrected by pressure of the foot).

The Sears' kit used brass tees and elbows, and required about three hours' time, by two men, to install. (The newer kits usually use tees and elbows made of plastic.) There are no kits advertised in the current 1957 Sears' catalog, but the separate parts and pipe are available at somewhat higher cost than the figure mentioned above. There are a few manufacturers with kits available at present, ranging in price from \$29.95 to \$39.95 for different types. Today the trend is toward the homeowner's buying the individual parts for an underground sprinkler system to fit his particular needs. The cost of the equipment bought in this way may be somewhat higher, but the results will likely be more satisfactory.

A different approach in lawn watering is the "*Irri-Kit*," at \$59.95, manufactured by Irrigation Equipment Co., Inc., Eugene, Oregon. This kit is not buried underground, but employs 10 lengths of 10-foot long, 1-inch aluminum pipe which may be laid on the lawn and be moved from one area to another. The six sprinkler heads included with the kit, cover 2000 square feet at a time, according to the manufacturer's claims. This particular outfit requires some work to move about, but it will cost less than a buried system for the homeowner with a large lawn where many sprinkler heads are required to do a desirable watering job.



## OFF THE EDITOR'S CHEST

(Continued from page 5)

washed. They discovered that a properly compounded product for mechanical dishwashers could be based on the use of low-foaming detergents of a certain common type, with properly selected builders to hold redeposition of soil to a minimum, and leave glassware bright and free from film, eliminating rings and water spots.

Even today, however, when much progress has been made in developing special dishwashing compounds, there is confusion in consumers' minds on how to find the one best suited to their particular machine and water supply. As one subscriber put it: "Although we have tried every known powder, none of them work satisfactorily. They leave tiny little specks all over the glassware and other pieces. I am wondering if you can give me the names of two or three acceptable liquid detergents which can be successfully used in this machine."

The synthetic detergents are specialized items that need careful selection for the particular job that is to be done. Unlike soap, which in some respects can be considered an all-purpose cleaning agent, the synthetic detergents that wash dishes and glassware best are not the same as the ones that go into the automatic clothes washer. Then there is the problem of choosing a liquid or a powdered detergent.

As detergent makers continue to experiment and improve formulas, it is obvious that the composition of a particular brand today may not be the same as it was the last month, or will be next week. Sometimes the name is changed as the formula is improved, sometimes it remains the same. How is the consumer to know how to select the best quality product for over-all economy and how to know the amount to add to a given quantity of water to secure the correct concentration for effective use? Which brand will give the correct balance in hard-water areas? No one as yet has found a satisfactory answer to these questions.

Since the problems involved are of great concern to hotels and institutions that use mechanical dishwashing devices on an extensive scale, some yardstick for evaluating performance, as well as a definition of quality and standard for labeling, is urgently needed. Recognizing that the current confusing, conflicting, and often misleading, claims, make it difficult for the hotel buyer to purchase such supplies intelligently, the American Hotel Association is currently sponsoring, through American Standards Association procedure, a project to develop standards not only for dishwashing compounds but for other

cleaning and maintenance supplies as well. Such standards will have benefits not only for purchasing agents in the institutional field but for ultimate consumers also.

Although committees have been at work on the various projects for over a year, progress has been seriously impeded by the refusal of the representatives of manufacturers and trade interests to take any kind of constructive approach to the problem. In fact, the stalemate has been so successful that the representative of one of the trade associations has hopefully petitioned the American Standards Association to discontinue further activities of the subcommittee working on test methods. Supporting this stand, one of the leading trading journals in the field criticizes the project for what it calls "attempting the impossible" and takes the somewhat antiquated position that "standard brand" items are the consumer's "best bet" because their manufacturers make the best possible product at the lowest cost commensurate with quality. This is the type of argument that might have been valid back in the latter part of the nineteenth century when commercial brands of soap were beginning to compete with the housewife's homemade product, but it is as out of place as the horse and buggy in these days when the able chemists of many large manufacturers bring out some new detergent formula at such frequent intervals that they themselves often do not have any dependable knowledge of its performance in use until it has been tried by consumers.

Refusing to be deterred from trying to secure for its purchasing agents some standard of performance and nomenclature for advertising claims and labeling, the hotel association has passed a resolution indicating its determination to continue to work for development of standards in the field and suggesting that its members inform all sales representatives who supply them with cleaning and maintenance products that development of standards requires the cooperation of leading manufacturers in the field. A.H.A.'s resolution further suggests that such representatives urge their principals to cooperate with the project. Since the standards when developed will surely be of great benefit to ultimate consumers, it would be in order for home users of dishwashing compounds to write the manufacturers, whenever they have any unhappy or unsatisfactory experiences, pointing out the desirability of labeling such products so that it is entirely clear what they are to be used for, at what concentration, and how they will perform in terms of a known, recognized method of test. Consumers' Research will be glad to receive copies of your correspondence on this question.

# Ratings of Motion Pictures

THIS section aims to give critical consumers a digest of opinion from a wide range of motion picture reviews, including the motion picture trade press, leading newspapers and magazines—some 19 different periodicals in all. The motion picture ratings which follow thus do not represent the judgment of a single person, but are based on an analysis of critics' reviews.

The sources of the reviews are:

*Boxoffice*, *Cue*, *Daily News* (N. Y.), *The Exhibitor*, *Films in Review*, *Harrison's Reports*, *Joint Estimates of Current Motion Pictures*, *Motion Picture Herald*, *National Legion of Decency*, *Newsweek*, *New York Herald Tribune*, *New York Times*, *The New Yorker*, *Parents' Magazine*, *Release of the D. A. R. Preview Committee*, *Reviews and Ratings by the Protestant Motion Picture Council*, *The Tablet*, *Time*, *Variety* (weekly).

The figures preceding the title of the picture indicate the number of critics whose judgments of its entertainment values warrant a rating of A (recommended), B (intermediate), or C (not recommended).

Audience suitability is indicated by "A" for adults, "Y" for young people (14-18), and "C" for children, at the end of each line.

Descriptive abbreviations are as follows:

adv—adventure  
biog—biography  
c—in color (Ansco, Eastman, Technicolor, Trucolor, Warner Color, etc.)  
car—cartoon  
com—comedy  
cri—crime and capture of criminals  
doc—documentary  
dr—drama  
fan—fantasy  
hist—founded on historical incident  
mel—melodrama  
mus—musical  
mys—mystery  
nov—dramatization of a novel  
rom—romance  
sci—science fiction  
soc—social problem drama  
trap—travelogue  
war—dealing with the lives of people in wartime  
wes—western

A	B	C		
—	9	5	Abandon Ship! (British)	dr A
—	3	2	Accused of Murder	cri-mel-c A
—	2	2	Affair in Reno	mel-c A
3	4	—	Affair to Remember, An	dr-c A
—	1	3	African Manhunt	mel A
—	3	4	Attack of the Crab Monsters	sci AY
—	2	1	Baby and the Battleship, The (British)	com-c AYC
2	7	10	Bachelor Party, The	dr A
—	4	6	Badlands of Montana	wes A
—	6	4	Ballout at 43,000	war-mel AYC
—	3	5	Band of Angels	mel-c A
1	3	—	Battle Hell (British)	war-mel AY
—	1	5	Bayou	mel A
—	12	7	Beau James	biog-c A
—	—	3	Beautiful But Dangerous	dr A
—	2	7	Beginning of the End	sci AY
—	—	3	Bermuda Affair (British)	dr A
—	5	2	Bernardine	com-c AYC
—	5	8	Beyond Mombasa (British)	mel-c AY
—	5	9	Big Caper, The	cri-mel A
—	2	3	Big Fun Carnival, The	car AYC
—	8	7	Big Land, The	wes-c AYC
—	4	—	Black Tent, The (British)	adv-c A
2	12	5	Boy on a Dolphin	mel-c A
—	3	5	Break in the Circle (British)	war-dr A
—	2	1	Brothers Rico, The	cri-mel A
—	4	—	Buckskin Lady, The	wes A
—	2	9	Burglar, The	mys-mel A
—	6	11	Buster Keaton Story, The	biog AYC

A	B	C		
—	4	2	Calypso Heat Wave	mus-com A
—	5	5	Calypso Joe	mus-com A
—	2	1	Checkpoint	mel-c A
—	7	5	China Gate	war-mel A
1	3	—	Colditz Story, The (British)	mel AYC
—	3	5	Counterfeit Plan, The (British)	cri-mel A
—	3	3	Curse of Frankenstein, The (British)	cri-mel-c A
—	5	8	D.I., The	war-dr A
—	3	4	Deadly Mantis, The	sci AYC
—	5	—	Decision Against Time (British)	mel AYC
—	7	8	Delicate Delinquent, The	com AYC
—	2	9	Delinquents, The	soc-dr A
2	7	9	Designing Woman	com-c A
3	13	2	Desk Set	com-c AY
—	1	2	Destination 60,000	mel A
1	4	4	Devil's General, The (German)	war-dr A
1	4	4	Dino	soc-dr A
—	5	—	Doctor at Large (British)	com-c A
1	6	5	Dragoon Wells Massacre	wes-c AYC
—	3	2	Dragstrip Girl	mel A
—	3	1	Duel at Apache Wells	wes AYC
—	—	6	8 x 8	fan-c A
—	6	6	Face in the Crowd, The	dr A
5	10	3	Fear Strikes Out	biog AYC
—	—	3	Female Jungle	dr A
—	1	3	Fernandel the Dressmaker (French)	com A
—	8	3	Fire Down Below	mel-c A
—	—	5	Flesh and the Spur	wes-c A
—	3	—	Footsteps in the Night	mys-mel A
—	6	4	French They Are a Funny Race, The	com A
8	9	1	Funny Face	mus-com-c AYC
—	7	4	Fury at Showdown	wes A
—	6	9	Garment Jungle, The	doc-mel A
—	1	3	Giant Claw, The	sci AY
—	2	1	Girl from Corfu (Greek)	com-c AYC
—	2	10	Girl in the Kremlin, The	mel A
—	2	2	God is My Partner	dr AYC
—	10	3	Gold of Naples, The (Italian)	dr A
—	6	—	Green Man, The (British)	cri-mel A
—	1	5	Gun Duel in Durango	wes AYC
3	10	5	Gunfight at the OK Corral	wes-c A
—	8	3	Guns of Fort Petticoat, The	wes-c AYC
1	12	3	Happy Road, The	com AYC
2	4	1	Hatful of Rain, A	dr A
7	9	1	Heaven Knows, Mr. Allison	war-dr-c AYC
—	5	5	Hellcats of the Navy	war-dr AYC
—	2	3	Hell's Crossroads	wes-mel A
—	2	5	Hidden Fear	cri-mel A
—	2	3	High Terrace (British)	mys-mel A
—	1	9	Hit and Run	cri-mel A
—	1	2	Hold That Hypnotist	com AYC
—	4	3	Hot Rod Rumble	mel A
—	1	3	Hot Shots	com A
—	2	8	Hot Summer Night	cri-mel A
1	2	3	House of Numbers	cri-dr A
—	7	3	If All the Guys in the World	dr AYC
—	8	6	Incredible Shrinking Man, The	sci-fan AYC
—	4	1	Interlude	dr-c A
—	1	3	Invasion of Saucer Men	sci AY
—	8	2	Iron Sheriff, The	wes A

A	B	C		
1	4	10	Island in the Sun	dr-c A
—	2	2	I Was a Teenage Werewolf	cri-mel A
—	10	3	Joe Butterfly	war-com-c A
1	3	1	Joe Dakota	wes-c A
—	6	2	John and Julie (British)	com AYC
3	9	2	Johnny Tremain	hist-c AYC
—	2	2	Julietta (French)	com A
—	3	5	Kettles on Old MacDonald's Farm, The	com AYC
—	7	6	Kronos	sci AYC
—	5	1	Land Unknown, The	sci A
—	8	1	Last of the Badmen	wes-c AYC
—	6	4	Let's Be Happy (British)	mus-com-c AYC
—	2	1	Life and Music of Verdi, The (Italian)	mus-dr-c A
—	5	13	Little Hut, The	com-c A
—	4	10	Living Idol, The	adv-c A
—	4	14	Lizzie	dr A
—	6	6	Lonely Man, The	wes AYC
3	9	3	Lost Continent, The (Italian)	trav-c A
1	4	3	Love in the Afternoon	dr A
—	5	4	Loving You	mus-com-c A
—	2	3	Lure of the Swamp	mel A
—	—	3	Maid in Paris (French)	dr A
—	8	6	Man Afraid	cri-mel AYC
—	—	3	Man Beast	sci-mel A
—	2	1	Man in the Road, The (British)	mel AYC
—	6	2	Man on Fire	dr A
—	1	10	Man Who Turned to Stone, The	cri-mel A
1	11	6	Men in War	war-dr A
—	9	3	Midnight Story, The	cri-mel A
—	3	3	Miller's Beautiful Wife, The (Italian)	com-c A
—	6	10	Monkey on My Back	biog A
—	4	5	Monster that Challenged the World, The	sci AY
—	4	2	Monte Carlo Story, The	mus-dr-c A
—	11	1	Naked Eye, The	doc-c A
—	5	1	Naked Paradise	mys-mel-c A
—	2	6	Nana (French)	dr-c A
—	6	—	Night Passage	wes-c AYC
—	3	4	Night the World Exploded, The	sci AYC
—	4	1	Not of this Earth	sci A
—	2	6	Oasis (French-German)	adv-c A
—	11	6	Oh, Men! Oh, Women!	mus-com-c A
—	6	3	Oklahoman, The	wes-c AY
—	5	2	On the Bowery	doc A
—	3	1	Out of the Clouds (British)	mel-c AYC
—	2	2	Outlaw's Son	wes A
—	1	14	Paris Does Strange Things (French)	com-c A
—	3	5	Phantom Stagecoach, The	wes AYC
5	2	6	Pride and the Passion, The	dr-c A
2	7	5	Prince and the Show Girl, The	com-c A
—	6	4	Quiet Gun, The	wes A
—	7	1	Raising a Riot (British)	com-c AYC
2	8	6	Reach for the Sky (British)	war-dr AYC
6	6	—	Red Balloon, The (French)	fan-c AYC
—	5	—	Restless Breed, The	wes-c A
—	6	2	Revolt at Fort Laramie	wes-c AYC
—	6	6	Ride Back, The	mel-c A
1	5	2	Rising of the Moon	dr AYC
—	3	11	River's Edge, The	cri-mel-c A
—	1	2	Rock All Night	mus-mel A
—	4	7	Royal Affairs in Versailles (French)	dr-c A
—	4	2	Run of the Arrow	mel-c A
—	5	10	Saint Joan	dr A
—	2	3	Scandal in Sorrento (Italian)	com-c A

A	B	C		
—	5	8	Seventh Sin, The	dr A
—	8	2	Shadow on the Window, The	cri-mel A
—	2	7	She Devil	sci A
—	6	2	Shoot-Out at Medicine Bend	wes AYC
—	5	5	Sierra Stranger	sci AYC
3	5	1	Silk Stockings	mus-com-c A
1	7	2	Smiley (Australian)	dr-c AYC
1	10	5	Something of Value	mel A
8	9	1	Spirit of St. Louis, The	biog-c AYC
—	2	2	Spoilers of the Forest	mel-c AYC
—	3	8	Spring Reunion	dr A
—	5	3	Stella (Greek)	dr A
—	4	4	Storm Rider, The	wes AYC
—	7	11	Strange One, The	sac-dr A
1	5	8	Sweet Smell of Success	dr A
—	6	4	Tall T, The	wes-c A
—	8	4	Tammy and the Bachelor	com-c AYC
—	9	4	Tarzan and the Lost Safari (British)	adv-c AYC
—	7	8	Tattered Dress, The	cri-mel A
10	3	2	Tears for Simon (British)	cri-mel-c AYC
—	3	2	Tempest in the Flesh (French)	dr A
—	8	8	Ten Thousand Bedrooms	mus-com-c AYC
—	6	2	Third Key, The (British)	mys-mel AYC
3	7	6	This Could Be the Night	mus-com A
—	7	1	Torero! (Mexican)	biog A
—	5	2	Town on Trial (British)	mys-mel A
—	4	4	Trooper Hook	wes A
—	7	10	True Story of Jesse James, The	wes-c A
5	11	1	12 Angry Men	dr A
—	4	1	20 Million Miles to Earth	sci AY
—	5	4	27th Day, The	sci A
—	—	4	Two Grooms for a Bride (British)	com A
—	1	4	Undead, The	fan A
—	—	3	Unearthly, The	cri-mel A
—	3	11	Untamed Youth	mus-mel A
—	3	2	Value for Money (British)	com-c A
—	1	4	Vampire, The	cri-dr A
1	6	6	Vintage	dr-c A
—	9	—	Voodoo Island	cri-mel A
—	6	—	Voodoo Woman	mel A
—	8	2	War Drums	mel-c AYC
—	7	7	Way to the Gold, The	mel A
—	8	9	Wayward Bus, The	dr A
—	4	2	Weapon, The (British)	mel A
—	1	2	Winner's Circle (French)	dr A
—	8	—	Women of Pitcairn Island	mel A
1	7	6	Written on the Wind	dr-c A
—	2	6	X the Unknown (British)	mel AYC
—	—	3	Yellowneck	mel-c A
—	3	7	Zombies of Mora-Tau	fan A

Reissues (oldtimers you may have seen before) as previously rated in the Bulletin indicated:

1	8	4	Bride Goes Wild, The (Oct. '48)	com A
—	6	10	Bright Leaf (Jan. '51)	dr A
9	9	—	Cinderella (July '50)	mus-car-c AYC
7	4	3	East of Eden (Sept. '55)	dr-c A
9	7	3	For Whom the Bell Tolls (Feb. '44)	war-dr-c A
5	11	1	Gaslight (Feb. '45)	mys-mel A
1	4	10	Green Dolphin Street (June '48)	dr AY
5	11	1	Jim Thorpe—All American (Jan. '52)	biog A
—	1	7	1,000 Years from Now (Captive Women, May '53)	sci A
—	5	12	Postman Always Rings Twice, The (Oct. '46)	cri-dr A
4	8	4	Strangers on a Train (Jan. '52)	cri-mel A
—	10	4	West Point Story, The (June '51)	mus-com A
1	10	5	Winning Team, The (Jan. '53)	biog AYC
1	10	5	Young Man with a Horn (Sept. '50)	mus-dr A

# Phonograph Records

BY WALTER F. GRUENINGER

Please Note: The first symbol applies to quality of interpretation, the second to fidelity of recording.

**Bizet:** *Carmen Suite* and *L'Arlesienne Suites 1 and 2*. Detroit Symphony under Paray. Mercury MG 50135. \$3.98. Popular Bizet played as well as you'll find on records. Sound is good, but not as round and full as some disks. AA A

**Debussy:** *Trois Ballades de Francois Villon*, etc. Janine Micheau (soprano), Camille Maurane (baritone). Epic LC 3355. \$3.98. Songs in French, with orchestral accompaniment, by Debussy, Britten, Ravel. Uncommonly well sung and played. Fine engineering. AA AA

**Dvorak:** *Cello Concerto* & **Fauré:** *Elégie*. Janos Starker (cello) with the Philharmonia Orchestra under Süsskind. Angel 35417. \$4.98. Celebrated concerto. Lyric, brilliant, effective playing of the solo part which is well supported. At times the cello is nearly submerged by the orchestra, as often happens in the concert hall, but in other respects the fidelity is good though not up to some other hi-fi recordings. The preferred performance of this work is the oldish Casals' on RCA Victor LCT 1026, but the fidelity is far below this disk. Overall, the Angel is first choice of this work. In contrast, the playing of the beautiful, mournful *Elégie* is prosaic. A A

**Elgar:** *Symphony No. 2*. Philharmonic Promenade Orchestra under Boult. Westminster WXN 18373. \$3.98. Elgar's reputation over here has never equalled that in Britain. Yet, if you care to give one of his symphonies a try during this year of celebration a century after his birth, you'll find the performance understanding and the engineering quite satisfactory. AA A

**Grieg:** *Recital*. Kirsten Flagstad (soprano). London LL 1547. \$3.98. The 14 compositions for soprano and piano recorded here have a delectable flavor all their own. It would be a pleasure to say they are perfectly sung by this distinguished artist, but there are signs of strain in the top notes and some loss of brightness in the mid-range. Nevertheless, there's far more voice left than many singers have at the height of their career. A A

**Khachaturian:** *Gayne Ballet Suite* (selections) & **Mussorgsky:** *Night on Bald Mountain* & **Borodin:** *Prince Igor Overture* & **Rimsky-Korsakov:** *Flight of the Bumble Bee*. Hallé Orchestra under Weldon. Mer. 50137. \$3.98. A group of short numbers "representative of the Russian national school." Conservatively played and warmly recorded. What's wanted is more brilliance in playing and recording. A A

**Mozart:** *Serenade for Wind Instruments No. 10*. Members of the Berlin Philharmonic under Lehmann. Decca DL 9918. \$3.98. Delightful music, among the best pieces for winds. Very well played and recorded, equalling the excellent Capitol P 8181. AA AA

**Mozart:** *Symphonies Nos. 36 and 33*. Symphony Orchestra of the Bavarian Radio under Jochum. Decca DL 9920. \$3.98. A cheerful work and the famous Linz are played beautifully, with just proportions and élan. Well recorded, too. AA AA

**Rimsky-Korsakov:** *Scheherazade*. Berlin Radio Symphony under Fricasay. Decca DL 9908. \$3.98. This popular "Oriental narrative of some numerous and varied fairy-tale wonders," as the composer described it, appeals immediately to everyone. It may not wear well, however. Fricasay's dragging of the first three movements won't endear this disk to those who know the better ones. The last movement is full of fire. Richly, spaciouly recorded. I prefer the dash and color of the Ormandy-Columbia CL 850. B AA

**Rossini:** *William Tell Overture* and *Barber of Seville Overture* & **Donizetti:** *Daughter of the Regiment Overture* and *Marches* by Schubert, Tchaikovsky, Strauss. Orchestre des Concerts Lamoureux and the Concertgebouw Orchestra under van Kempen. Epic LC 3349. \$3.98. The overtures are played with appropriate nuance by the Lamoureux, but not enough dash. The marches are stirring. Fine recording. A AA

**Schubert:** *Quartet No. 15*. Hungarian Quartet. Angel 45004. \$3.98. One of Schubert's last and greatest quartets for strings. Though it is played with insight and devotion, the Budapest Quartet on Columbia ML 4833 tops it and is better recorded. A B

**Schumann:** *Concerto for Cello and Orchestra* & **Falla:** *Suite Populaire Espagnole* and *Ritual Fire Dance* & **Haydn:** *Divertimento*. Daniel Shafran (cello) with the State Orchestra of the USSR under Kondrashin. Vanguard VRS 6028. \$4.98. Shafran is not yet a great cellist, but he draws a warm, throbbing tone and can play fast. Well supported and recorded. A AA

**Shostakovich:** *Symphony No. 10*. Philharmonia Orchestra under Kurtz. RCA Victor LM 2081. \$3.98. Somber, but it may be Shostakovich's most enduring symphony. There's fine balance, tension, understanding in the performance. Well recorded. But the top performance is offered by Mravinsky on Concert Hall Society 1313, which is less well recorded. A AA

**Strauss:** *Don Juan*, *Waltzes from Rosenkavalier*, *Till Eulenspiegel*, *Love Scene from Feuerst. Philadelphia Orchestra under Ormandy*. Columbia ML 5177. \$3.98. Some of Richard Strauss' most popular orchestral pieces. Supple, colorful readings very well recorded. AA AA

**Strauss:** *Death and Transfiguration* & **Tchaikovsky:** *Romeo and Juliet*. Philharmonia Orchestra under Galliera Angel 35410. \$4.98. The *Romeo* dynamics and wide range challenge anybody's hi-fi. The piece is beautifully played. The Strauss rises and falls, huffs and puffs, but doesn't convey the spirit of the work as well as some other performances. A AA

**Tchaikovsky:** *Piano Concerto No. 2*. Cherkassky with the Berlin Philharmonic under Kraus. Decca DL 9916. \$3.98. Though not as celebrated as Tchaikovsky's *Concerto No. 1*, when the work is played as remarkably as it is here it is hard to understand why it isn't more often heard. A bit more bloom in the recording of the woodwinds and bass would improve matters. AA A

*Classics in the Park*. Donald Voorhees and His Symphony Orchestra. Urania UR 8003. \$3.98. Standard light music arranged for orchestra which makes for agreeable listening. "Valse Bluette," "Simple Aveu," "Hejre Kati," "Poeme," etc. Tastefully played and rather well recorded. AA A

*Designed for Dancing*. Jan Garber and His Orchestra. Decca DL 8484. \$3.98. A dozen instrumental foxtrots including "All the Things You Are," "San Antonio Rose," "Ballin' the Jack," "Love Walked In," etc. Pleasant, straightforward style featuring wind instruments. Agreeable listening. AA AA

*Great Protestant Hymns*. Virgil Fox (organ). RCA Victor LM 2099. \$3.98. Here are 21 hymns familiar to every Protestant, including "Aurelia," "St. Catherine," "Abide with Me," "A Mighty Fortress is Our God," "Jesus Saviour Pilot Me," "Faith of Our Fathers." Forthright playing on the Riverside Church organ, well recorded. AA AA



## The Consumers' Observation Post

(Continued from page 4)

eat two meals a day that approximate home fare. Alcoholic drinks and beer and wines should be kept to a minimum. Bottled water is advised in many areas. Where this cannot be obtained, "Iodine Water Purification Tablets" or "Halazone" tablets should be added to the water available before it is drunk. After the onset of diarrhea, Dr. Kean advises the patient to eat rather than fast; intake of adequate liquid is particularly important. Warm tea and rice, either boiled or as chicken-with-rice soup, and apple-sauce every two hours are prescribed. Simple foods may be added as the patient recovers: warm cereal, boiled chicken, poached egg, boiled or mashed potatoes. Dr. Kean points out that the experienced traveler always takes his own supply of soap, toilet paper, and facial tissues. Paregoric, sometimes prescribed by physicians for diarrhea, may not be taken into certain countries without first obtaining an appropriate permit. Dr. Kean questions the efficacy of antibiotics in treating diarrhea and points out that as a last resort one can be comforted by the fact that the disease will run its course.

\* \* \*

WHY AUTOMOBILE SALES HAVE LAGGED THIS YEAR is a subject to which the experts in the trade have devoted much searching analysis. The "crystal balls," however, are somewhat clouded and no one knows just why. Auto manufacturers are inclined to deny that there has been much price resistance, and they hopefully add that more fancy gadgets are being purchased than ever before. On the other hand, Automotive News reports that dealers find prospects are becoming more "transportation-minded" and want every dollar to buy hard value rather than frills. The journal also notes that consumers show a preference for cheaper cars with fewer costly optional equipment items. The industry's theory that "more car per car" will make buyers pay continually higher prices may receive a severe jolt if such grass-roots thinking finally gets through to the top brass of the automobile manufacturers and the big distributors.

\* \* \*

ORANGE OR GRAPEFRUIT JUICE strained from the natural fruit and placed in a pitcher or glass will lose only a negligible amount of vitamin C (ascorbic acid) if stored in a covered glass or china container in a refrigerator. According to the Journal of the American Medical Association answering a doctor's query, the flavor of the juice is better if it is kept covered and stored in a refrigerator for no more than three days.

\* \* \*

THE ABUNDANCE OF FABRICS now on the market that are woefully substandard has given impetus to an increasing need to put into effect on a nationwide basis workable standards for fabric end-use performance such as the L22 set of standards for rayon and acetate, sponsored by the National Retail Dry Goods Association through the American Standards Association. One of the pioneers in putting these standards into practice is Reeves Brothers, Inc. At a recent trade association meeting, Mr. Reeves reported that the tremendous investment made by his company to install the new standards has paid dividends in the form of substantial savings in operations. They have enabled the company to secure a more uniform inventory of dyes and chemicals, simplify purchasing operations, and take the guesswork out of what can be obtained from Reeves fabrics in terms of performance durability. The most important saving, in Mr. Reeves' opinion, has been in the total absence of customer complaints or returns.

\* \* \*

TEETH NEED A HEAVIER LOAD in order to maintain the tooth structure. Just as a lack of load affects the bone structure adversely so the tooth that has only a soft diet to deal with will deteriorate. That is the conclusion of Dr. H. H. Neumann who points out that the trend to strained, chopped baby foods creates an aversion to chewing. He believes that if children, as well as grownups, were given hard foods to chew, including hard-crusted breads, pumpernickel or Italian bread, the structure of teeth would be greatly benefited.

IN THE MAJOR APPLIANCE FIELD, consumers are reported as not so much interested in price as they are in features and convenience. That was one conclusion of a consumer survey made by the Hotpoint Company over a year ago. The survey further pointed to the fact that consumers are increasingly selective in shopping, and they take their time before making a final purchase. Other factors that were important in selecting a particular brand were reputation, appearance, and convenience; price came toward the end of the list. And yet discount houses are still expanding!

\* \* \*

THE INCREASING DEMAND FOR COSMETICS has led to new uses of many substances and the development of new synthetic compounds. Unfortunately, the interest in producing new products has outstripped research into the fundamental properties of the skin and the action of these new chemicals and drugs on the skin, according to Dr. Arnold J. Lehman of the Food and Drug Administration's Division of Pharmacology. Acknowledging that claims can justifiably be made for the effectiveness of certain preparations for reducing skin dryness and hiding skin blemishes, the F.D.A. official deplored exaggerated advertising of "skin foods," wrinkle eradicators, and "deep pore" cleansers. He also pointed out that there is nothing known to science that will restore the original color to hair that has turned gray or that will cure early male baldness.

\* \* \*

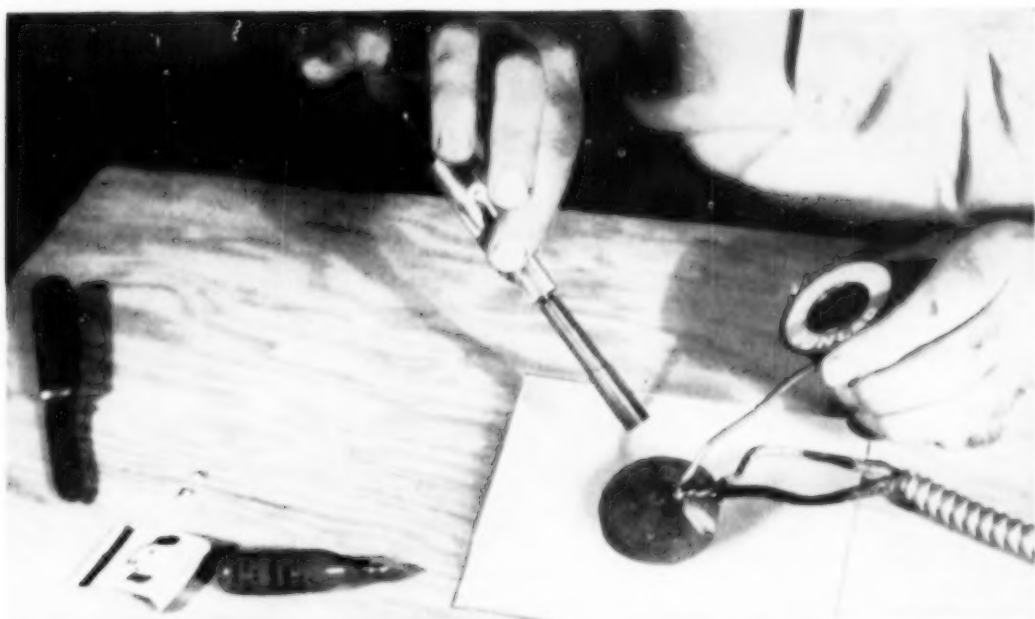
FOODS PRESERVED BY ANTIBIOTICS may be dangerous to consumers. Animal experiments, reported by Drs. Barbara Read, Herbert S. Goldberg, and R. N. Goodman, of the University of Missouri, indicated that animals fed a prolonged diet of food treated with small doses of the antibiotic streptomycin became resistant to the drug. Guinea pigs were also used and were fed a diet including greens that had been treated with a streptomycin dip for preservation purposes. They also showed increased resistance to streptomycin. It is too early, of course, to draw conclusions, but the consumer who may need to rely on the administration of an antibiotic to save his life in some illness or operation take no chances and will avoid foods treated with antibiotics, including chicken and fish.

\* \* \*

AUTOMOBILE DEALERS IN SOME SECTIONS are finding that high-pressure sales tactics do not bring results. The Wall Street Journal reports that many buyers have become suspicious of advertisements making extravagant claims and stay away from dealers which sponsor them. One sales agency which claims good results from allowing customers to do their own looking keeps salesmen at the desk merely to answer questions and take orders. As one dealer concedes: "We've got to impress the public with our sincerity."

\* \* \*

AUTOMATIC ELECTRIC SKILLETS are so popular that nearly all of the major appliance firms are making them. Before you pay for one that appears to bear a well-known trademark, check carefully. The Federal Trade Commission charged the Niresk Industries, Inc., last spring with misrepresenting the price of its electric fryer and making other false claims. The sales literature bearing the company's name showed an attractive skillet and prominently featured the seal of Alcoa Aluminum. The name "Westinghouse" appeared in large letters, but in smaller type the information was conveyed that the brand name applied only to a Westinghouse thermostat that controlled the temperature of the pan. The Underwriters' Laboratories' UL seal was also featured, but whether this seal applied to the cord, thermostat, or to the entire product was nowhere indicated. The "suggested retail price" of \$39.95 appearing on the advertisement was crossed out and in bold type appeared the offer "To our regular customers only \$7.95." The careless reader who got the idea that this was a Westinghouse product at that price would certainly think he was getting a bargain, for the Westinghouse frypan tested by CR in 1955 was purchased for \$18.20. A critical reader of advertising might also notice that, although the fryer is called "Copper Beauty," in smaller type the description carefully referred to "Copper Tone Bottom."



## Too hot to handle

THE *Jet King* blowtorch pictured above *could* be just about what the "do-it-yourself and hobby fan needs," as the advertisements in popular home-handyman magazines say. But the manufacturer would have to include an asbestos glove with the gadget at the \$1.95 price to make the device a worth-while purchase.

A *Torch Jet* cartridge will last for 30 minutes, as claimed, if the user has the skill to control the size of the flame by turning the cartridge slightly as required. Unfortunately, after 5 minutes of use, *the whole torch* becomes too hot to handle, with the exception of the small  $\frac{3}{4}$ -inch-long cork collar which is intended to serve as an insulator to protect the fingers, but is quite inadequate in size for its intended purpose.

Perhaps the purchaser will assume that the occasion may not arise when he will have need to burn the torch for more than a minute or two. The instructions for use state "Point torch away from you and up and light with match. Hold upright for one minute to warm up." Thus if you want to join two small wires with a soldered joint, for example, it is advisable (indeed necessary) *to burn the torch for that minute* before using it for the job. What if you don't? You may wind up with a "flame thrower" because the

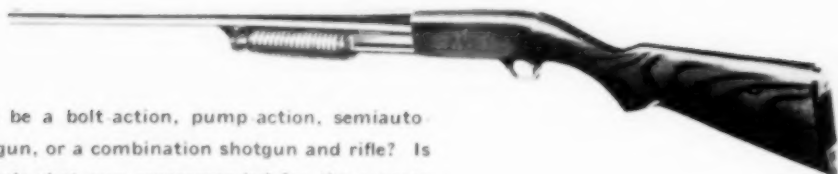
liquid (unvaporized) butane gas on occasion squirted from the nozzle like water under pressure spurting from an over-age garden hose.

If you should find it difficult to resist the temptation to purchase the *Jet King*, consider that for about \$3.50 you can purchase a small propane-gas-operated torch with a flame sensitively controlled by a needle valve with a knob, a torch almost as convenient in size. The small 2 $\frac{3}{4}$  by 5 inch cylinders (about 75 cents) are far more economical than the 25-cent *Jet King* cartridges; the larger cylinders will provide a useful flame for 25 to 30 times as long a period of use, and we believe that they should be much safer to use. All liquefied gas torches involve some dangers; the *Jet King* particularly is no tool for the careless user, or for anyone who will not read and follow the instructions exactly.

### C. Not Recommended

**Jet King Blow Torch** (Kidde Mfg. Co., Inc., Bloomfield, N. J.) \$1.95, postpaid, with single cartridge. Extra cartridges, 2 for 40c. Performed poorly, was relatively expensive to operate, and unsafe, if not used in strict accord with the instructions. The manufacturer's full name and address should be on the torch and cartridges he furnishes.

## Buying a shotgun?



Will it be a bolt action, pump action, semiautomatic gun, or a combination shotgun and rifle? Is the single shot gun recommended for the average sportsman?

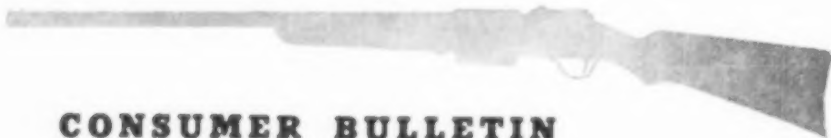
After selecting the type, the gun buyer must decide on the gauge he wants—10, 12, 16, 20, 28, or 410. What are the most generally accepted first and second choices for the "all around gun?" Is it safe to buy a secondhand gun?

### COMING

What about pattern density and shot size? Where does "choke" enter into the problem of selection?

When you have decided on the gun best suited for your purpose, what about the price? Prices of guns rated range from \$25 to \$140. Which of the guns reported are worthy of A Recommended ratings and why? What were the faults of the B and C rated guns? Where and how can you find the answers to these questions?

The first of two articles on shotguns will appear in the October issue of Consumer Bulletin; it will include results of tests of bolt action and pump action shotguns. The second article will deal with semiautomatic guns, with brief discussion of double barreled and combination guns. These articles will provide dependable money-saving advice for both the novice and the more experienced shooter.



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